

SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140>

<141>

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

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<223> plasmid a1-1-14

<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

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gtaacgaggt acagaagcat tgtattacaa tggatttcat cacatgatat taaagaggta 60
gggtttantt tggtggacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
atttagatcc aggctcacag acttgacgct gctatTTTT tactcagtaa gatcatcttt 180
atctgtatgc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233

<210> 2

<211> 314

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

<400> 2

aatggaagag gtcaagaaga atgttaatgg cttttcagag accattgagg ttttgagtca 60
gcacgccaag aaatgttaacc aggtatattag gatggcacga gcagtgatct tgcgaaagat 120
tgtcagtcaa cccagtagct ngtatcagg catggtatg ttcttgatt gacagtagnt 180
gtcttgnnga ttttctttt gtttatatac catgtatgtt tgtaaaaagt tggtccaatt 240
atgttctgtt ggatctgttg atttgagatt tttgaccct gcagaaaaatt aagttatagt 300

cctcattttg ttag

314

<210> 3
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-1

<220>
<223> homology with metallothionein, homeobox gene
induced

<400> 3
ggcagcggct gcggaggatg tggatctac ccagacttgg agaagtccat accttacca 60
tcgttgatgg tggatccc atgaagact ttgaggaatt tggagagaaa gcagcagaag 120
gaggaaatgg ctgcaaatgc ggatcaaact gcaccgtga cccttgcata tgttaagata 180
attctcttgtt gattccacaa taatgtgtt gtttctgtt ataataagga taaaactaca 240
gctagccatg gaactgattt tcagtttta ggtttgtttt ttctgtt 286

<210> 4
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-12

<220>
<221> misc_feature
<222> (58)..(195)
<223> n can be any nucleotide

<400> 4
gacatcagct gttggagctc aagactttcc tcctgtttca caatatgact ataaatantt 60
gcaacttcag ctgttggagc tcaacatttg caagtgatta ttggcttga agagaactta 120
atttatttgtt tgtacttgg tggcaaattt tggatca agtagtaatt tgccttgc 180
ctctatgttt tcaantagta atttgccttc gcgagtttat tacatgagaa atcagattct 240
cagtctttgtt gtagtaattt tttggctgg tgccatcagc caagtg 286

<210> 5
<211> 278
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-15

<220>
<221> misc_feature
<222> (64)..(186)
<223> n can be any nucleotide

<400> 5
ctacaaaaga aaggttattt atacaatatg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngctaa cataataat aagatttga taacctaatg accaacaaca ctatattata 120
taatatgtgg aaaagatgca tccaaactatc acagatataa catccaaagg ctatactaa 180
tttctnctaa ataacaaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatagt 240
ccccaaattt gttgtcatcc tctaacattc aatattcc 278

<210> 6
<211> 349
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-1 ; homology with a serine
carboxypeptidase

<220>
<221> misc_feature
<222> (19)..(19)
<223> n can be any nucleotide

<400> 6
gcagaaaat tttggggng gcaccatctg gtttcttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttcctcaaag tcccatgatg caggtcatat 120
ggtgccatg gaccaaccaa aggccact cgaaatgctc cagaggtgga ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agatttaaca tttttccagc tttaaaaattc catcaaaaca tagaaaatca 300
tgttagataca tttcacctt tcaggttacc ctgaaatctg tcaatgaaa 349

<210> 7
<211> 367
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-3

<400> 7
gtggaggaaa ggttcaggga aggttgcgg agtcaatgcc gccgatgccg ggaaagttt 60
cctgagaaat gaaactgccc gaattttgac gggtggcgac atgaggaacg ttaagtccacc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgcccgtt caatcgagga 180
gcagtttgcg ggttcaaata aaactagtca aattgaacga gtttcaactga ctcggtaat 240
gaatgtatcta aaaagggtaa aatcgtaat gacaaaggcg aatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat tttcaataat tattggaaat gataattaa 360
tatttgg 367

<210> 8
<211> 389
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-4

<400> 8
ggaagaagaa agagaaaagg ctgagaaaaga gaaagagaaa gagaaaagaag cagctgctga 60
agaagccaag attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
ggaaaatcca gaggtaatg gtgttaagga aaatggtaag tcggaaaata atttgtcaa 180
ggaaaatggt gatgttagta aagggtgatc atgaaatgat tgattaatta ggagttccac 240
ttaaaaactag gatccaataa ttttgaatag ttttgctgtg ttcacatgt tgactttgtt 300
attcaaacta ttccggatgga agtagtgat gtcgcaatt acattnatgtt taactacctt 360
cttgtgaaag taacatttc ataatttag 389

<210> 9
<211> 317
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-5 ; homology with EREBP-1

<220>
<221> misc_feature
<222> (9)..(309)
<223> n can be any nucleotide

<400> 9
ggacatacna nacggcggag gatgcggcgt tggcgatgca caaggcggcg tatcgaattc 60
ggggatcgcg tgcagtgtt aatttcccgt tgagggttaa ttccgggtgaa ccggaaaccgg 120
ttccgggttgg ttcaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgtcgg 180
aaaatatttc gacaaagagg acgaagaagg ttgccnnct atacagctga gggttaattt 240
gggaatttca aaattgttca attccatgaa caggttgagt tcaatatttt atttcatttc 300
ctctcctcnt agaaatt 317

<210> 10
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-8

<220>
<221> misc_feature
<222> (166)..(263)
<223> n can be any nucleotide

<400> 10
ctgagctagg agagcacaca gggccttagt tcaagtggaa aaggtggaaag gacttgtat 60
taagtacgg gttttagcta cgtgccatgc gaattaaatgt tggtattttaa gtggagtagg 120
gttagagggtt ggaccattt tccgagtttca gaatgtgca gttgtnccta gacagatttc 180
tcgtcctca aaataaaata aaataaaatgt gcttgagaa taaactccat ttttgatc 240
gtacaatctt ctgcataaac atanctcaa aagtgt 276

<210> 11
<211> 293
<212> DNA

<213> Nicotiana tabacum
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 <223> plasmid a18-3-2
 <220>
 <221> misc_feature
 <222> (27)..(277)
 <223> n can be any nucleotide
 <400> 11
 gatgtacctg aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
 anatgtatgc tcgattttgtt attttgattc ntaaaantga taannnnngag ntgaantcga 120
 ctgtattttg caagnntagt tatatctta atcttgttc ataaaatgca tgtgtgattg 180
 ttattttagt cgatagaaaa aagaaagacc cngtatagtt tgttgatctg tgctgcagtt 240
 tttgacagcc aatgctgttt tttaggttac aatatgnagt tgattttcta ttg 293

<210> 12
 <211> 290
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12
 taaaagggtgg atttgaggaa ggaaaggatc ttgtgttgct tggatgtct gcaatgggtg 60
 aagagcagat tgccgctgtt aaggacattt gtaccaagaa ctagtcgcgc attctgcagc 120
 ataaataatt tgcttttagcc aagacatttt atatcttaat cgtggtactt tgatatccgt 180
 tgattatgaa ctcgacttat atcctattgg catggcttga atagttgaac tttatggttt 240
 gctctggtaag acagaactgg atttgatagc agaagtgatt tataatgaatg 290

<210> 13
 <211> 260
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid a18-4-6

<220>
 <221> misc_feature
 <222> (36)..(172)
 <223> n can be any nucleotide

<400> 13
 tgatgtatggc tgggttcaact ccatccccaa ttagtngnaa cgtntatgan tngatccaga 60
 attttatcaa gcnatatagt gnaaggnaca aagccaaggg gggggcaggt gcaatncatt 120
 ttgggtgggg aganaagagn ntgattgttg ctttagctt ggaatagtta cnaagtatgg 180
 tttctctata taaaccacca atgtgcacatcg aatcaacttg tattgacatc tgactttgtg 240
 ataataattca gtgtttatga 260

<210> 14

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<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-1

<220>
<221> misc_feature
<222> (222)..(267)
<223> n can be any nucleotide

<400> 14
cgatgatgtt ttttcgcgac ttgatttagaa gcaaatcagc aatagataag ggacttgtat 60
aaaagatagg tagcaaaata tactgtcctc ttctgtcctct gcctttttt tcttttaac 120
tttgattttt cagccatctc tggtaaaagt tctgatttct ctgggctcag ttttgttaat 180
caatataaaat caatataaaa acagcttgct tttctatgtt tnggttgatt tagatatgca 240
aatncttggt agagctgttt ctcttncc 269

<210> 15
<211> 268
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-3

<400> 15
gagtaaaatt catatttgat aattatacaa ggaattaca ttcttaaaga agtgattttg 60
atttgagttc caagatttg tgaagttact aaacagattt tgagttccta acttgtgcgc 120
aatgctggat aactcagcca tttaatatt ctagtactcc attaattttat tgtttcttaa 180
cctatgtgta tggggcctt gcccagcaa cttagttga tttcagagta ttcgtttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16
<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-4

<220>
<221> misc_feature
<222> (72)..(177)
<223> n can be any nucleotide

<400> 16
caaggcagag agacttgaat aaaggggatc atgaggattg aacttacac ggtaagatgt 60
aaaataacag tnctatcagc gaattactat tcaatcctca aatgataag ttgtncaaat 120
aaatggggat tataagatnc cttttatctt tgcggaaaggg ggtgattttg tatnctnggg 180
atgtgttaact gttgaataaa atgtgtgaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcgggac tttaattta 269

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<210> 17
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-9

<220>
<221> misc_feature
<222> (91)..(22)
<223> n can be any nucleotide

<400> 17
aataaaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgcg caaacaatac aaacaaaacc 120
tattgttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaacgtc cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aaccccaacc caacc 265

<210> 18
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a20-1-3

<400> 18
ggaataaaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaacatgaa atctctaatt tctatttctc atgtccaaacc tcgtaaagca tgaagtccaa 120
ataaggcaag gcaaacattt cattcataga aacatgcaga aaagaattt tccagagtaa 180
taaaaaactat taacctaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaaacttaa cgtnaaaaaa cacaacacat aaaactcaac cacatcttgt tctgctggtg 300
gagtaaagta aaaacccaaa aactaaaagg gggggttgag ttaaggggct tcatttcatta 359

<210> 19
<211> 399
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal
protein

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 19
aagaagacca aaaacattaa gcataacggt aacatctcg tcgatgacgt catcgagatc 60
gctaaaggta tgaagccaag atcgatggcg aaggatttga gtggAACAGT gaaggagatt 120
ttgggcacgt gtgtatcagt tggtgtacg gttagatggga aggatcctaa ggattgcag 180
caagagatgtt atgatgtga tgcgagatt cctctcgatt gaatgcgaat tatcaactga 240

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tngtaatatt atgttaattt tatgttattt tgtttgagg atgtcatctt gaggatcatt 300
ttgatataac tatgacattc tggaaattta tatttgaaa tgtagttgg atttgcttt 360
tctcgatgaa gtgcatttagc attgcattat gcgtttgc 399

<210> 20
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-1

<400> 20
gtgcaatttg cagtcaactgg cgccagatcgc agagaacttg gctaaaagaa agagtaaatt 60
aacaactact cgtgactaat tctgtgttt tttaattttt gtacatttc tctctttaa 120
tttaggttgt ttgttgttt gagctgttag tttgaatga tggatagagt atttgttatt 180
attgttagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
aagggttggtt cttgaaattt ttacaacgtg actgtttgat aattctg 287

<210> 21
<211> 284
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-2 ; homology with
(chlorophyl)-geranyl-geranyl reductase

<400> 21
cagatgagta tgtgcagaag atgacatttg acagctattt gtacaagaaa gtggcaccag 60
gaaaccccat tgaagacttg aagcttgctg tgaataccat tggaaagtttg gtgagagcta 120
atgcactaag aaggaaatg gacaaactca gagtataaga ggattaataag cattaatatt 180
tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacacctt catccttcct 240
tcaataggat ttatgttaact tcatgatttg agttacattt cttc 284

<210> 22
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-4 ; homology with an early wound
inducive gene

<400> 22
gaacatgctg attgcagcag ttgaagaacg atatagagat gcagctctgt ggagggacaa 60
gcttactcaa ctgcggtcca aacgaaactg gatataacag gtgtgcttta gagttgtctg 120
agcaaaggac tactgtgtat atagggagtt attcatcgga gccaatgtgg tcagcatcgt 180
caaagatcaa ttgtagctct ccgttaatat gtaaaaataac ttgtgaatat ctgtatagat 240
tgtaatgcta atgtaaaaca aacaggtaaa cttatggttc ttggaca 287

<210> 23
<211> 344

<212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a9-1-2 ; homology with epoxide hydrolase
 [I]

<400> 23
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 aggcaagtcat tttgtacaag aacgtttcc tgaacaggc aatcagttga ttatcacctt 120
 cctcaaaaag ctcataataat aaactgctt ccagcgacgt tgaataaagg gcaacccagt 180
 gcacgaaact cccgttatgc acaagggtt ggaggagccg gcatttgggt cttattttc 240
 agagttgaat gttgatctca gtttatcaa acaataccat atcacattt cggcatattt 300
 ctacttgtat gttgatcaat aaaaggacg atggtttacg cgcc 344

<210> 24
 <211> 255
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a9-3-4 ; homology with ISI10a glucosyl transferase [I]

<400> 24
 aagagagtaa tggtagtga agaagcagag ggattcagaa acagagctaa agcgataag 60
 gagatggcaa gaaaagctat tgaaggagga ggatcatctt acactggatt gactacttg 120
 ttggaagata ttagtacata tagtttact ggtcattaag ttatgattaa aaaaaaagta 180
 gttcttagta tgatttctat actgttttg tgcttttct gtatgtact gtgctaattt 240
 aaacatttcc ttttg 255

<210> 25
 <211> 216
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a9-4-1

<220>
 <221> misc_feature
 <222> (26)..(171)
 <223> n can be any nucleotide

<400> 25
 cattaaacaa gaatttagcgg tggganttg gcaagaaaat tagaattgga tctaccgtgt 60
 gtgcctttta gcctattgaa aatcgattt cattttgctc taggcttataat atcttggttt 120
 agcttgcctt tattgggttt tattttttat tatgtttat gtattaaagg naggattcag 180
 agaataaata catattgttt atttcttagtt ttgtca 216

<210> 26
 <211> 212
 <212> DNA
 <213> Nicotiana tabacum

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<220>
<223> plasmid a9-5-9

<220>
<221> misc_feature
<222> (62)..(62)
<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatcttta cttagaattt tggatgtaga gcaaggatgc 60
anagaccgcg gctaataatga atttataaat atggattgtt gatctataat aagatataag 120
tttcgatact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcattcattt gtaaaaagtt tttgattttt gg 212

<210> 27
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-6-11

<220>
<221> misc_feature
<222> (73)..(73)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (144)..(144)
<223> n can be any nucleotide

<400> 27
taagcagtga cggagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
cataaaaacat ctnccctgtg tatatatctt tattttaaattt atttttatatg tatatataga 120
taatagctat ttatcataat atantttaaa tattgatttg agacaagaaaa taaaatctca 180
aaaccaacat attcttcc 199

<210> 28
<211> 178
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-1

<220>
<221> misc_feature
<222> (26)..(152)
<223> n can be any nucleotide

<400> 28
gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
gtttcagtg aattatcgta gtgtattnct agtggtggtt ggtncattac ctttccaaa 120

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taagacattt attgtttgac atnccaattt anaaatgtca ttttgtatcg ttctcttg 178

<210> 29
<211> 196
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-10 ; homology with LOX1
(lipoxigenase) [I]

<220>
<221> misc_feature
<222> (36)..(36)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (188)..(188)
<223> n can be any nucleotide

<400> 29
tagaacttta attcaatata aaagtattaa atccangtgt tgttattgtt tctttatatt 60
cctaataata atagaaaata aaattttta ttttatttc aaggagttc cagctacagc 120
taaaggangt aatgctgttag gctcttctgt tctgttaagta attcatttgt atcaacaagt 180
gcccagttt aaatttg 196

<210> 30
<211> 197
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-11

<400> 30
gaagacaaga aaaactata gacattacgt aaatattgaa tatagataga cttatgcgat 60
tggtatgtaa gaaaccttta gaagacattg tcaaactcca gtttctctaa cttgttaagaa 120
atgatcaaga gtgaacctgg cacagtcgat ccgcaatttgc ttgctgttt gtctcaatt 180
taacactacg cttccac 197

<210> 31
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-1-3

<400> 31
aatcattaag gtttaaaaga aaagataaca cgtaaaaacg catcctttt acctttagtgc 60
tcaaatttca aatgtatgtat tacggagaaaa ccgaatttgc aaactccata actctgctgc 120
tgttatttctc gtctcagaga gggagagacg cacaacgaac ataaaatag cgggagaagc 180
tcggaaaaat atgtttcat atatttatat aatttgaagt gaatttgcgttgc tggttggaaat 240

ttaactccct ctgtggattg ttattgaaga tataattttt tttcaatgtt cgtttctgt 300
ttcgattatt gaaagatgc aacagaaaga ttgtggctta 340

<210> 32
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-1-5

<400> 32
tgtatgatcg aggtgttaagc cctttcctg ctgccaatgc agtagttggc ctgaggagtt 60
gacaattgtat gacagggttt gacagtgtat gattttctt cctactagat taaagtctac 120
cttcactcat gtacatgata agcatttgta cagaacagtt atggttctgt ttataaaaaaa 180
agatttaggtt gtcttgactt gcatttctgt gtattttgaa agtgcagact cgctctttaa 240
cttctatgcg tggtggcttc ttgggccttc tccttcttgc tcgtgattgc ttcttataaa 300
attnaagtaa aaatacatag cctggcattt ttcttg 336

<210> 33
<211> 400
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-2-2

<220>
<221> misc_feature
<222> (9)..(86)
<223> n can be any nucleotide

<400> 33
agctacgann tgnctcnagg gcnnngaant gcgnncngng antnatngca ncnnngannt 60
antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattcttc cacgtacctt 120
tggcttggtt atacatgttag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
agcttctgtt ttgaagtctt tcccagtcaa tggtcgatag cattaatcgg ctgagatgga 240
gcttagatcc caagagtgc tgccttttag acggttgac ctaatcgtgt gtttgactc 300
tattatgata cttcatctg ctgcactaaag aaattgacaa gtgcggtaa tttcttacat 360
gagggaaattt caactggaat gccttagtat tattgtgtt 400

<210> 34
<211> 330
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-3-12

<400> 34
ggaatggatg atctgaaagc atcttaagtc taaaggaagt ttgcaactca gttgagattc 60
atccacactg agagaaacctt ctgaaacaac catacttctg ctttatcctg ttgtaccatgt 120
aatagctgtt gcagcagaca atgagctttt tttaaagaca ttgggttgtt aacttaaac 180
ggaaggaact ggattgaggc aataagtgtat tctggagaat agtgtttga ctcaaataatt 240

taatttcatt ttccagatca tgatcacctc ttgtgatttt acatgtttaa ggacttcaag 300
tgaatgtatt gtcagtaag ttttattacc 330

<210> 35
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-1

<400> 35
gagtaggatg ctggggat ggtttctgt tttacagaat ccttacaga tctggattc 60
aagaagacca tggatgg taggatgtct tgagatgaag catgaattat cttacgccgg 120
aaattttaag aacttttgc cattttcat ttacagctca acagttata tcgatttagta 180
gatggatgc ttcccttattc catattctaa tcctccaac acattatcct agtctgtcta 240
gtattccatt tactgcattt gcacttataat tgtactggc ccaagcttca 300
aaagaatgtt tggaaatgagc cattcactcg ttga 334

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-5

<220>
<221> misc_feature
<222> (2)..(111)
<223> n can be any nucleotide

<400> 36
gnanagagng naantttggg ngganagntg ctgttgcnaa nccctanttt cncccnngcca 60
antgngggaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattctt attactagtt attttcattt gttaacacca ataataacta atttgcttgc 180
ttggcttcat atctggatgc tcgcttgc agcttattat tgtcattttt tgtatgaata 240
aaccaaggcg acggcaact cttgactctt gtaaaaaagta gacggtttct cagtgtagaa 300
gtcggagtag taccattcct gaaatcttgc cttt 334

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-2-1

<400> 37
aatatgaagg gggtaaatc cgtaaatata attaactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atatcattct tttgtacata attatttca agattatata 120
aaatgaaaat tgatgttga tcgagatgac tttccattat ttaagttgaa aatggagagt 180
ggttgttca atataagtat ttaatcttgc ttttct 216

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<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaaggtttc cattgcttat ccccggtata tttaccttat catttctgg 60
ttggacatta ccgtatagc tagaagataa tcatgttgac tgagaaatct tatttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39
ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaattttaa 60
gtatttgtta caatttcaga agtacaatat ttgaaataca aatatataga aatattaata 120
gcgataatag tcatacgata caaaatattt attcacaaat caaaagaaaa acaaaggtag 180
tt 182

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-1-6

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 40
catcgatgg aggacaaggc aagtgaaggg gacagcaaga aacctcagag cagctcgaat 60
agacagactc ccacttcaaa tccatttcca gcttottcgc aatctcctcc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgctg cctccatctt tgccattgat atcagattca 180
acgtcgatcat cgatcgaaatc tcctccata gttgcataat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatataca gaatcaaatt catcttagaa ttctgtatgc 300
agaatggcccg tgcttattt gattcaccag tgatttttt gctcgatgt acaaaatact 360
agtaattaac taccactcga gaagccttgc aaattttgtt tacacgaatg cattcaatga 420
actggatcg accttcttg t 441

<210> 41
<211> 340

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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal protein

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tggcgccca ccagccaa 60
cagctcaggc atctaagaag tcaaagaagt gagcatgtg aattgttaagg agggcgccaa 120
gcctgcgttt tggtcttgct agtataacag tttagcatgt ttgatctgtt cccttattgg 180
tcctttaact ttggaagaca acgttacctg tacgaatttg gaagctgggt taaagtttg 240
atcacctgtt tctcagtgtat acctttact catgtttga ttatataattc aacttagttg 300
tttgcgtcg catggaatgt agtgagtgag cagctatttg 340

<210> 42
<211> 184
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA genes (chl)

<400> 42
ccagagacga ggaaggcggt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccaaat agggcaacct ttgcactgc tgctgaatcc atggacaagt 120
aatgagacaa ccatcttgct gtatattata aagcataagt aataatccat tcttatagtg 180
attt 184

<210> 43
<211> 186
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat caccttgcc tctgcgactt agagacaatt gaactactgc 60
atttgcttg atttctatg ttgtatctt agtataataa cgtcgtgagt gagtttatat 120
ttgcaaagga tatccagtcc aatccatgtc tgggttaaat gtatattgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-1-60 ; homology with a glycolate oxidase

<400> 44

ccttcaacaa ttcatggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggaggtgtcc ggcgtggAAC tgatgtcttc aaagcttgg cacttggAGC 120
ttcaggcatt ttatTTGGAA ggCCAGTAGT tttCTCATTG gCTGCTGAAG gagaAGCTGG 180
aatcaaaaaa gtGTTGCAAA tGTTGCGCA tGAGTTGAG ctaACTATGG cATTGAGCGG 240
ttGCCGCTCA ctGAACGAGA TAACCCGCAA CCAATTGTC ACTGAATGGG ATGCTCCACG 300
tgCTGCTCTT CCAGCCCCAA GGTTGTGAAA ATGTAACCTCA AGTGTCAAT TGTGTTGATCA 360
aAGCAAAGTA ttGCTCAct GTTCAAGAG CTTATTTT GGTGTTGAAT ACTTGTTCT 420
gtttaatgag ttacGATAA tGTTAAGCTT ttCTCAGTAA tGAAAAGACTG atAAATTCTG 480
ataAAATGGCC agatATGCCT ccATTGTAc ATCCTCTATT TCTATATATC ATCATATTGT 540
gaactttc 549

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-10

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttg 49

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S)
ribosomal protein

<400> 46
ggggaaaatc aaagactgag cttttggctc agttaaagga tctgaaagca caacttgctc 60
tcctccgtgt tgctaaggTC actggcggtg ccctaACAAA ctctccAAAAA ttaagggtgt 120
gaggttgtca atagcacaag tattgacagt gatATCACAG aAGCAGAAAGA cAGCATTGAG 180
aaaAGCTTAT aagaACAAGA agtacttgcc tcttgacctc cgtcccAGA agactAGGGC 240
cattcgtaaa cgtcttacca aacatcaggc atcttGAAG actgaaAGGG agaAGAAAGAA 300
agagatgtac ttTCCAATTt gaaaAGTATGC cattaAGGTT tgaATTGATC caacttagat 360
agtttgtatG gttAGAGCAA agtCTGAGGAT cattatTTT gCCATTTGC aatgttatAT 420
tttgtattac tactatttGC cattatGAA gttGGAGTT tGTTATTTG tttGcCTTAT 480
gcgtgcaact tttatGcatG atcctgtcta cacttCTTT tctacacttG tgatcgAGtG 540
tcgtgattat tgt 553

<210> 47
<211> 311
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-3-4 ; homology with L25 (60S)
ribosomal protein

<220>
<221> misc_feature

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<222>  (49)..(49)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (159)..(159)
<223> n can be any nucleotide

<400> 47
taaaaggaag attaaggatg ccgtgaagaa gatgtatgac atccagacna agaaaagtcaa 60
taccttgatt aggctgtatg ggactaagaa agcatatgtg aggttgactc ctgactacga 120
tgcattggac gttgccaaca aaatttggaat catctaaant agtagttacc tgtttagaat 180
tttacgagaa tttaaaatct tggattgagt ttttagatac acttgaatgg aagtgccttc 240
tatTTTcat tttgaatttt gtgttttggaa gacatgtttt gttccgtata agagaaatca 300
acttttatgc t 311

<210> 48
<211> 272
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-5-1 ; rice genomic homology

<400> 48
actgggatag tcaaatttatt gatcatgaag atgggccact cgaaagggag aagcttctgt 60
ttgcagtgaa atcatattgg acagcgccag ctgctcaagg atcttaaact acttaatccc 120
actgtttta atctttctta cttcaaagtc taatcatatt gctaattcctc tcttttattc 180
tttcacatgt taagttcttag tattacttgc aaattgtaaa ctctaggatt ttaatgattc 240
ttcagcaact acactgaagt aatgagttct gt 272

<210> 49
<211> 270
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatagtga ccagaatatg atcaaacaag ctgcccgtatct cgaagcttct aagcgtcctg 120
cctaattaat tataactggt ttccagttct ctagcaaaat aagtcccttt tttattgttt 180
caatTTTcag tcatgtcttg ttccatgct gtgttctcaa ttctgttaatt ttacataactt 240
atatacaaat gaaatgttagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

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<220>
<221> misc_feature
<222> (18)..(19)
<223> n can be any nucleotide

<400> 50
tcaccaaatt ggcttgnna cttataatta ttgttagcat ataaaagaat aactattgtc 60
atattacatt tttccctaatt gttcaatgcc ttttttagttt tcaacaaatt caatgtttt 120
tggttcactt gtttgagaa tgattgcaaa atcatcaatg taatgcagtc tatatttgaa 180
cgaaattcat tga 193

<210> 51
<211> 203
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-2

<400> 51
aagaaatcct gaataacatt tcatttggga ggaggattata tatagttaat ggatttgggg 60
ttttttgcc agtaaaattt gttcaacat ttaatagaac tctgctgtt aagggtttt 120
tttttatatg attagttact gtatttgtat tcaacagaca atattaattt aaatcaaattt 180
tctgcgtaga ccaacttctc ttt 203

<210> 52
<211> 492
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-4 ; homology with CBP20 (pathogen
and wound-inducible antifungal protein) [I]

<220>
<221> misc_feature
<222> (402)..(461)
<223> n can be any nucleotide

<400> 52
ggacctcggt gccgaaactc ttgtggcaaa tgcttaaggg tgacaaatac aggcacagga 60
gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacgtt 120
aacgtttcc ggcagctcga cacagacgga agagggaaatc aacgtggcca ctttattgtt 180
aactacgagt ttgttaattt tggtgacaat atgaatgttc tggtatcccc agttgacaag 240
gaataagaag ctatatatgg ccatgttttag tctttgacgg cccaaataaa agtaaaaaga 300
acgatatgtt aaaggaaaaaa gaaaataaaag ttgcttgat ggggttaggc aattccaata 360
tctattcaag aatgtcttc gttttgggaa gaaagagtga antgtgtatt atctttgtga 420
tttgttatgc naatattgtt atttttaaac aaanaatcnc ntgggacagt atttgttgg 480
ctcctttga ac 492

<210> 53
<211> 201
<212> DNA
<213> Nicotiana tabacum

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<220>
<223> plasmid c15-11-2

<400> 53
ggatcatgag gtctatcgag tgaaggcaca tgcgatggcg agcaaaaaaa agctttgcc 60
catgtctaga acacaatgcg gatacattt atggcccatc taaaaggaac tatactgcat 120
ccaagctgtt aatggccata atatttcca atatcatgac atttcttcac tgttattgga 180
taaacaagct tgagatctac t 201

<210> 54
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-4 ; Arabidopsis genomic homology

<400> 54
agttgtacac caaacttatac cataagtttg aaaccatttt atttccagtt tacatgtact 60
aaattatcggt tagatttgct tatatgtatt gtacagtagt tctaattggaa aggttgatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgttagt gtgcgagaat attgcttcta 180
aacacataaag tttcccggtt 199

<210> 55
<211> 431
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-2-8 ; Arabidopsis genomic homology

<400> 55
gtcgcacaaa ggcttccgtg gatacaatac catgaagtac ccaatgttgg acatttgctt 60
attcatgatc gagccgtgaa ggaggttatac tggaaagacat tcttggccgg agagaaagag 120
cagatagtgt attcttaaac gggagaagg agattttagag gttcccttgtt aagaagacac 180
attctgtgtc ttttactggat atatcctatt gcatacatat taatcatata taaagttcgt 240
gagctagtag ctcaagttttt ggaacttcgg tggataatgg tttgcccctc taccctaact 300
gagaatcct ggggagacgc aagtttcgaa actcgatgga taatggattt gaccttctac 360
ccttctttaa gacggttttt tggtaacttga atgtgcattt cggtttaaaa cgtttttaggt 420
gtggccttgtt g 431

<210> 56
<211> 446
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (33)..(33)
<223> n can be any nucleotide

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<220>
<221> misc_feature
<222> (61)..(61)
<223> n can be any nucleotide

<400> 56
aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatcctgt 60
ngaggtataa tttcacttgg gacgatgtac tgaatttcag gctctactt gcaagtagtc 120
ttaatatccccc tcatagaaca ttgcctcgaa tcttcactga tgtgtttaat gaatttgctc 180
agatgagtca gagagtttagc gtaaaatgccg agcctatctt aaatatcggtt ccagtcttgg 240
gtgctggag gtcttatcg accttggatg atatattcac gtgtgaattc atcgcttagga 300
aatgttagat ctcatttaaa ttagggatt atatattaaa tggtgagaaa aagagagttt 360
tgaactgaa caaattctta taatgttatt gccAACCCAA ttgttgcaaa ttacacttag 420
cttacagga aatgaatata tgaagt 446

<210> 57
<211> 247
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-6-2

<400> 57
gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
acatagaagt gctttactac agtatttaag gacaaaatca ccaaaagcta atgaaaaaac 120
tggaggtgtt tgagcttcaa cactactcta ttggaaactg ttgtatgccg atactatgat 180
tgtgtttgg ataataatttt tgtgtgcaa gttatgtatgt aatatgtatgt aaactattaa 240
agcgtgt 247

<210> 58
<211> 325
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-6-3

<400> 58
accgatcaag tacctaatta gagttccaaa tgctgcttag gctttggtcc aacaaggct 60
tgttgttcca ggcatttaac tccttttgc ggatatcgat tctttatccg cctgtgagtg 120
gatgcttctg ttttgccat cttctggaaa gtttagttga ctgtaaaaac agctaaactg 180
taaactaaat tagcagagga aatctgccgc cagatatttc aacatgcaag gatataatac 240
ttgtcgagaa taaaatttc agcttctatg gcctttctg tgatactttc aggaaaacat 300
tctatcagaa aatacatacg ttctg 325

<210> 59
<211> 235
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-7-1

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<400> 59
gttcatgtatg tgaagctctt gagtgcagg aaccctcgat gattcctctg agtcatgtat 60
ttttatgtaa aacgatgaat ttgcaggta tagtatgagt aaatttggtt gtaatgaagc 120
aaaaagaatg tggggagttc tggttctctt agcttgttta ctagtagtgt ttccatata 180
gtatgttata tactaatgtc taatgaaagg caaagaagta tatatatattt gattg      235

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-8-5

<220>
<221> misc_feature
<222> (217)..(306)
<223> n can be any nucleotide

<400> 60
taatgagcgt gacggaccaa attagtata tagatagtc atatcttcg cattctagta 60
caatttatac ccataacaaga gtatacattt atgttactcc atacaatga aagttaaaaa 120
agttattgaa tgtggattc ataatcatag ggacaagcga tgtgaattct ctatgtttg 180
atgaacgact tgtatgatg gtttccttag aatacanaaa ttaaatatat ttattgcnaa 240
aaaaaaaaata cntgactcan aggaatcnac gagggttcct gacnctcaag agcttcacnt 300
cntcanc                                         307

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-3-1

<220>
<221> misc_feature
<222> (35)..(243)
<223> n can be any nucleotide

<400> 61
aagaatacaa gtactgcattt cacaaggcattt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaattt ggcaaaatctt gctagcgtgg cctgtgtacn cctgcatttt 120
ttccccattaa caacttcctgtt ttgtatgtat ttgtgtcnatc gtgtggatgc tcattgattt 180
gtactaatctt gtaacgaagt gcaactttca gagattaagg ttttgggtt catttcngtc 240
ccntgggggtt ttccggaaaca actatgggtt cttgtaaattt cctctgtatc tgacagtggg 300
ggcaatattt ttacaattt atttcaattt caaccggta ta                                         342

<210> 62
<211> 287
<212> DNA
<213> Nicotiana tabacum

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<223> n can be any nucleotide

<400> 65

gatagtctat tagttaccca aacctgctcc gtatatttg catattgtca aagtgatctt 60
tcaggtactt cgtgattgtt gtattcattc taaattttgc gatcaaata gttcatcctt 120
agtgattgtta caantaatac taaaactggc actattnngg tttgaattca cantttctca 180
cataatt 187

<210> 66

<211> 382

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-1-2 ; homology with DNA-J domain
containing protein

<220>

<221> misc_feature

<222> (53)..(53)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (72)..(72)

<223> n can be any nucleotide

<400> 66

cttgataaga ggatggcaaa cattcaaagc cgcacctcg a gttcgagggt ttnatccgg 60
tggtttgaac angttatgac aagaagggaa gcagcattaa ttcttgaggc cagagaaagt 120
gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcattccagac 180
gccgggtgta gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
aaaaccaaga cagctaattc cgctttctaa ttcaccattt tggttgccacc ttccttctta 300
acagcttaat tgtccgtata cgtgtAACAA agtgaatttg tatccgtaga catgttacta 360
tcataattta ggagacttct tt 382

<210> 67

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-2-1 ; homology with CCT (chaperonin
containing TCP-1) beta subunit

<400> 67

aatatctgag tcgttcaaag tcaaacaaggc agtgttgctc tctgccactg aggctgctga 60
aatgatccta agggttgacg aaatcatcac ttgtccccca aggaggagag agggaatgt 120
aaaacaatat tggtcatgtt taagctgtt agatgactcg tattttattt tggtttgaga 180
atttgagatg gtaggtgtgg gctgtaaacg agtcaaatga tagattgcta ttggaaccat 240
gctaaagtgc actgcgtga gtatgttctt ttgaggagca aatgttttg tttgtttca 300
taatgtatgc atgcttctat agaaaacatt tgttcgatac 340

<210> 68

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<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-2-11

<220>
<221> misc_feature
<222> (70)..(294)
<223> n can be any nucleotide

<400> 68
aaataagggt gcggaagcaa acaatccagg acattctgct ggatcatgg tataccgtaa 60
tgaaggttt gttantttgt ttctgtggca ttgttcaaatt cttttatcag tnctccgctt 120
ctatacgaggc aaaaggaaat ccttttttc agcatgtacc tgtaataatt tgtaaaaata 180
aaagttgata agtcatgttag ctagctgtgt taatagaaga aagagatgag agtgagattt 240
agatatacatg ttttatctat accttnctgt ggtatgttagg cttttactgc tcanctcata 300
cctcattgac acatctaattc aaattattcc acttct 336

<210> 69
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-3-10

<220>
<221> misc_feature
<222> (63)..(324)
<223> n can be any nucleotide

<400> 69
caggcaacta ataccaagcc attagttct cattatgaaa aactttacaa agacaaaatt 60
acncanaact acaaggccaaa aaagctcaac atagtaactn tgatcaaattt atcatataat 120
atttgcagcc ttggacacac ctcagcaaca gaatggaacn tcaacaacac taanaanttg 180
cacacctaaa tccaaaacaa aaagactcga ctccgtatca naaantangg tttacntgaa 240
aatgtatgtat ggttnancaac actgaaactg tctaacaatn ataanttcnc nctctcaana 300
caancnttat ctctgttcgt tnancgtt ggttttat 338

<210> 70
<211> 323
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-19 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (102)..(154)
<223> n can be any nucleotide

<400> 70

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actaagtttc tgcatttggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtacaaaaaa aacatttagca gtaactaaaa antatanctt ctgtttggg 120
gggattcanc aatttgaaga ntctgttgcg tgantttaca agctttcttg ctcctaattct 180
ccactctcat gctttcactc ttctcaatct tatcgtaaga ttccatttcattt tcagagacc 240
tcctcaattt tgtctcaag ttcatcatta atctctcaaa tcccatcattc tccactctgt 300
atttcttc aatttaattt cct 323

<210> 71
<211> 326
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-22

<220>
<221> misc_feature
<222> (111)..(323)
<223> n can be any nucleotide

<400> 71
taaaggatat tgaaaagtaa atcctgcaag cacatataaa ggtatgttc tacaaaaaca 60
taaatcgat aggtagaaat gaaaggcggg ctgagagggg aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nngcttaaa gcactcaaag ccactactgg 180
agaaacagca ctctccactt gtatctcagg aatgcactat aagaaaatct antatactan 240
ctggacaata taataggtag gtatthaagt ggaaaaagggt aaagggacaa gcccattatc 300
taccatgttt tgaactgcgc acncgg 326

<210> 72
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-5-1

<220>
<221> misc_feature
<222> (25)..(220)
<223> n can be any nucleotide

<400> 72
atatacatct ggagcaaatac acgantttta atacaaaact caccctacaa aacatggant 60
cncccactgca tcttaggcat ntggacagca anaaaaacaag caanttgtt qgccccctnc 120
actatttaca tttactctat tttgaatttt ttaatcaatt tgattatntt atttggttat 180
tttatttcta cacttaatct gggattgctg attcagttt gacttcttta ctttagtattc 240
tcacttcgtc actggc 256

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid c19-5-4

<220>
<221> misc_feature
<222> (25)..(199)
<223> n can be any nucleotide

<400> 73
attnaatgaa tttagggaaa atctncttt gtttnggtt atattgcaca ttctcatgga 60
tattttact atttgttca tagtttaaca tcagcaagtg ctttcttatt ctggatatatt 120
gacgccaatg tantaggctt tgactttctt ttaaacattg ttgttgttga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcg 240
agctttgcat ctttgat 257

<210> 74
<211> 242
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-6-3

<220>
<221> misc_feature
<222> (70)..(210)
<223> n can be any nucleotide

<400> 74
caaacttagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgt acataccaaa acaaaaacatt caacaagatt gtatccaaa gaatacctgg 120
aaaaattaca acacttggga actgaanaac cttanctgac cccagaaaac cattaaaggt 180
aatatagcgc atcttacac gttgtgaan atcacaat atcctcaatt tgttgcctaa 240
ct 242

<210> 75
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-7-4 ; homology with putative
      translation initiation factor 2B beta sub. NIFb

<220>
<221> misc_feature
<222> (11)..(11)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (176)..(176)
<223> n can be any nucleotide

<400> 75
ataaaactata ntaccattta gttgttata atacgaatga ataaaccatt cgacaactta 60

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acttttcaatg caacaatagc atacgtgttg tctaataata ccacaaagga aaaccacca 120  
caagtagtac tctgcataatc cgaaaatcaca aaactccagc acaaatactaa tctcanaatc 180  
aatctacaaa ctccaaaaat cgcgatgctc tttcatctg tttattgcag tcagtataat 240  
gttaggtgcaa catcttg 257
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<210> 76
<211> 384
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-1-10

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<400> 76
gtgcagtaaa ctgaatagg tgcacagact agctgccaga tgactttca tgcggtaggg 60
tttttcttat attactgcca tacagtattt gagctggaga tatcaagacc gtgcttagctc 120
tgctgattag ttgtccgtat agatgacagt gatacataag ctgacttgg aatccaagtat 180
ctggtctacc acaaatttattt ttctttggaa ttacttcaca atattcttaa acgatttttg 240
ccggataaat gcaatattca ttgattgtaa tcaatcacta caaggaggat gaagaatata 300
ttcttaaatg atttttgcca gataaatgtt atattcatct atatggatag atgaattctt 360
gatcaaatgt aagttcatgt cgtat 384
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<210> 77
<211> 181
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-11-14

<400> 77
tgatgcgcatacataaaactaattattatccaaagccaaagctatcctttgc cagttgcttgc 60
ataaacacata tcttttgtc ttgattttaa aatacatgag gtgtatttgc cggtggatca 120
tattgcagcg gtgttcaatg taatttacac tgatacaaaa taaggtaatt tgttatattgt 180
g 181

<210> 78
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-11-2

<400> 78
aggaaatact gcatcaaacg gacaacaact cgatgcaggt gaagaatcct agtgctgtaa 60
tttgctaataa caagcacata gtttgtctgc tgtctttta cttaaatatt ttcccctttg 120
aagttgttgg aatcgttatta attttgttag ttaaaggcggtt atcaatcaat atatcttcc 180
tg 182

<210> 79
<211> 359
<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-1

<400> 79

aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca tgtagccgac 60
caagttcaaa gatgaaaacat actgtatttt gccagtggac attcttttg tggcttat 120
ccttataagg ttttggcat tatctctgg attccttgtc aaagtagacatt atgatggcag 180
acctctttag agagatcctc aaagtttatg tggtgttat ttatatcatt tttctcgat 240
agttaaatat tagggatat tcttccttcg gccatttgat ttgggttcaa ggtcttgaat 300
gtcgcaagaa atagctcagt ttaaaggagt tcatgtatgt tctcccttc tctgccccc 359

<210> 80

<211> 356

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-3

<400> 80

agaaatatacg ggtaaggctg cgtataatacg attcttgcgg ttcgaccctt ccctggcacc 60
cgagcttagt gcacccgggtt gcccctttat ttcagaagat gtatattatg aactcttgg 120
tttagatttagt ttcagattat ttttaagaa attatttttt agcaaagagt aagctcactc 180
tttggctta ttagtaataa gtttgcggtaag ttatcccttc acaaatgata tacagtattg 240
gtgtgaggtt tttgggttgc atattcttgc gtattaattt ttgcatttgc acgtgttattt 300
gctcaattgg ccagattgg tttctcttct taatgctaag cactacttgc tatcat 356

<210> 81

<211> 338

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-4-1

<400> 81

gtggttccg tgaatcgtga cgccaaatat cagtttagcaa tggtaactaa ctccatggca 60
acatactggaa aatgagtgtaa aatctgaat ttccagatgg gtgtgacttc ttcttgtata 120
gctgggtgtt gtttaacttgc ccttagattca ctctcaactct cattgggtgt gtcctgtgc 180
tagtgacggg tcttatttgc gctctttaga gttgatgtta tatttactct acctatctgt 240
tgaagtttat ccaattggta tactttttt gggttggaa aacaaagtgc tattcgaatt 300
tgtaaattca atttcgatca aaccacctta aatctgt 338

<210> 82

<211> 336

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-5-6

<400> 82

ggtggcctaa tttgcagtt tgatttagt tcatcattag ctatttctg gattgaagtt 60
aatgccgaa aatctgttg taaccta at cttcaacaaa tcaattgaaa tatcactca 120
aggcacttca ggtccctc tt gcacgggtt agagttcca acagattcg gagattcact 180
aggtagctgc ttggcattcg cagcccaatg cttccctc tatcttattt tctcttattt 240
tagttctgtatg atagactatg tagactctt ctgtttaaa tcggtagta gatattcatg 300
actggtaca ccccggttgc gggctatgtc tatttc 336

<210> 83
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-6-5

<400> 83
ttaaagaatg ttttgtctaa tcttgcgtg gcttaatgc acgtcaaagt ttgctgtcat 60
cccctggcaa tagcggacaa caaatctgcc agctactgat gctgatgggt atttgtttaa 120
gtggagaagt aaataggatt ttatatactaa tattattgcc tttcatagg tctcagagtat 180
atgtgttagaa caagcacagc tgcaaattgt tattactaat tttatggtgg aaatctgttg 240
aaagttattt tctttt 256

<210> 84
<211> 254
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-7-1 ; homology with patatin 3'-strand

<400> 84
atgatgtcgg tttgcattt tggaaatgca agtttactt tggcagattt ctccaagtcc 60
ttaggggtt atggatttcc cctacaacag aattactatt tttcccttct ttttatgttg 120
tttggcttta gaaggatgtat ttatattttt taacacaacc aaaagtctac ataatcctta 180
gcatatttca aatttacata gagggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcatttttca ttta 254

<210> 85
<211> 219
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-9-14

<400> 85
ggaatacat tgggtttgtc gtttgggtt tggatgtta gtagaccggc aagatatcta 60
gcattttgtc tctgttaaca tggacattat ggatttgtaa attcaactga ctacttgcac 120
acgtctctct ggacattcgg gttattactt ggtacaagtt aataaacactt atgctctctc 180
ttatattatg ctttctgtatg aatattccctt ttccctctg 219

<210> 86
<211> 337

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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c20-1-4 ; homology with DNA-binding
      protein (pabf) [I]

<400> 86
gaagatgcgc tttagacttgg aggcaagtgtta gctacacctacc tctaattgtca attttgttagg 60
ttaaaaggcagg atttgatatt ttgttgcaca gtatgaagta tgtttttagtt ctaactgtat 120
tagcagtgtta tttcgtcatt tgataattac cttattctgc taatttgggtt aatgacaatt 180
aaggggggaga caaaaatcatg ctcgtgggct atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
ccttgc当地 tgcgtaaaaa gcatttgaat tttattt 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaagcaactc cacgttagtg ttataaaaacg agtttaataa agtttgactc tgataactatg 60
tgaaaagaatc taagcactaa aacaaaacctt taggcaata gtataacatt gagatgttc 120
ctttctaatt taaagaagga tagaagttca gtgcactctg ctcacaagat gtagtacaag 180
gattcttcaa ccaaggattt tgatggactt catgttgaga ttggaaaactt gaattcatta 240
ctggagatca ttgttcatgg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
gttgaccgt gcttaatata ggcagggagg ttgataatta tataaaggcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgtt tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatacgtt tttccacca tcagattgt tggcttgcga taagagacga cttcttttag 60
caaattata tgataacctg aagaatata tagaattaa tctgctataa ccagttaat 120

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agtactaatt acaactttt ttttaaagtt gtttgtaaa cattttcat gccatTTgt 180
ttgtcaaga ccgaaaaaac gtgggttgc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-1-2

<220>
<221> misc_feature
<222> (44)..(45)
<223> n can be any nucleotide

<400> 90
taatcaaaat tggtaaaaca atccaaacca aaaaaaacgg ttnntgttg ctctgtttg 60
aaatatattc gaatgttcct taatacctag cgtatgtaat aataaaaatg tactctgtt 120
gctctgttt gtattggat tatttaatta tattttagat ttataattt ttaaggcata 180
atcgaatagt gttgactgat gtttggaaaa tgtcatcaga tatcaatgtt ggaagccatt 240
tagctcagta aaatttattt aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgtta atggtagtgt tttctattt agtcatttgg gatta 345

<210> 91
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-3-3

<400> 91
tactcacggg gattaatctc atcacggttt caaatggaca aacaattatt ttacatggag 60
agttagagacc ctccagcttc ttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttggatagt tatggttct aacttatgta ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193

<210> 92
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c5-1-2

<400> 92
aaactagtgg tttatttgg tcacgtgaa tatggaggcag ctgcaataat atttcacaa 60
tagtactcat tgactagatt tgacacttcg gatgaagcca aggcatcttc agagtttgg 120
attctacaat gtttccaagt tataatctgct ttaatcggt tctgcttgc gcttaattgt 180
cttttgcgt tgcataccgt gtccaaatgtt gattgttagt ttagggatt tcagattgca 240
aggccctttat ttactcggat caaatttgc attgctagtc ccctttttt gagaaattct 300
gtatgtccca tttcttctt ccaatggAAC tttcacttta 340

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<210> 93
<211> 343
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-13

<400> 93
agcagaaaaga caagtgtgg tctggagcca taaaatcgcc cgagtactct gcctcctt 60
gttctgtcc aatgcagttt tccactgggt ttgctgtggc gtaagtctt tatggtaacgc 120
aactcaaaact aataaataaag gaaactgttt atacagctt tggaaagcta acccaataaag 180
atttggtcat aagtagatgg gttatgttca gtttgagca ggcaatctct ctgaatgaa 240
tgggttcag cctgcccccta ttgagaggaa gaggactct tattttctt aaaccatag 300
acaagtcat stataaaaat taatcattat tcttttttc ctt 343

<210> 94
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-4

<400> 94
gataggtatc agatggacct tataagttag aaaaactccta atgcaatcat cttaacttat 60
tggaaatatt tatagtgtga cagatacttg gccaaatgtct acagttatgt gtactattta 120
atgaacaagt ttatgggtt ttggtatatgt atgtaatttg ttacttcaga atttattttt 180
ctgagttt cactggtagc atgatttaca agctaattgt atccattttc tgagggatag 240
gatacagttt gattgctttt caatatctga tttgacactt tgccctatga ttcttgaaa 300
ggaatggata caagcaagct tattgctgtt ctgattt 337

<210> 95
<211> 294
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-9

<220>
<221> misc_feature
<222> (165)..(291)
<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgataacc 60
atattaaaaat cagtgacgta atgaagaat tgaactcgag gtatgtcca attatggaaa 120
tggaaacttg gcgaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
cttagaagtg aaagtctcaa ttgtattgac tatgtaatgt cgtatatac agtgttttaa 240
aagggtgtggc gtaaggctag qcattttaca catacctcaq cqqqqcgtaa nata 294
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<210> 96
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-2

<220>
<221> misc_feature
<222> (37)..(234)
<223> n can be any nucleotide

<400> 96
caaaggactg tgcttcata gggcgtttt agaggtnntg cagccactga cacatcaagc 60
accacaacgagg aaaaggaatt gaaagaaaat aataaaattcg atgttaggatc aaatttctat 120
ttgggtgggt taattttant gaagttgata ctgcaacagg agaatgacag tccttgaaa 180
ttttaagtta ctattaatcc aacaagagat tgcgaatatg ggaggttatga gatnatctct 240
gtttctttac cgccctttac atctgaagc aacttagcat aggagttctt aaatgtatca 300
aatatcaata ttttcagcag agttcatttgc ttctttat 338

<210> 97
<211> 341
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-6

<400> 97
agtgaagggg gcaagagaag aaaagggaaaaa gaagaaaatg tcagtcacaa acattcaagt 60
gtttatatgt attcaacttt tatactttt ttcaaatgtat ttttactttt gcagatgggt 120
gaaagaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
ctctcttctg aatcttgatt gcgtctttgg tggatgtcgaa caaatgtcct gagatgggtg 240
aacttcacat ggtcgctgg tggatgtcgtt tggatgtttt tggatgtgtt atttacatc 300
tttctactat aaatcgaaat tttatataat tggatgtcgat a 341

<210> 98
<211> 314
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-10

<400> 98
atagcatata tatgttgaag cccctgctcc caactcaacc ccctcctttt cttacagcca 60
ttaatataatt ttggaaatagc tatttcctat ttttagggaaa aacgaccatg tattgttcat 120
tgacaagttac tttcataccccc tgctcaaagc aatatgtgtt ttctcgatc tggatgtttaa 180
ttttgtgttgc gaaacaaactct tggatgtttt gttttgtggg gtggatgttata actcggcctg 240
tgtgttgcgtt tacattttgtt tgacgtttt ctcttatata agaagagaca gtggatgttc 300
tgtctcatgg tcag 314

<210> 99

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<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (89)..(89)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (186)..(186)
<223> n can be any nucleotide

<400> 99
ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcgaaaaaa aaatgaataa 60
gagagttagag cgtaaaaatgg ctgcagttnc tagggataga gcatgggcag aaagactggc 120
agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgatgtt tattgaacag 180
agtttngatc tgttaatttt ctctcttgg tttgagatgt aaaaatatat taatccctta 240
ttaataggc acaatttct tcacacaatt tttatt 276

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-9

<220>
<221> misc_feature
<222> (3)..(409)
<223> n can be any nucleotide

<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttcgatcc 60
ngntcatcnc aaatgnrant ggccccgtgg naagctcagc cnngacaccc gantgttgc 120
nnngngtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggnntng attgnatccg ccggagancg gaaagtnatt nttgcatcat anagtnngtn 240
agangtgact cccnntctn tgcngnata tntntattgg nnggggnntnt tttagnattc 300
cagtnccattc cganatatacg atcncanatt ncнатаннта tacnanngcg ccccccncng 360
nntgtannnc atnngggaga tctcccanac gaggccgan gtagagtng aaaatctc 418

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c8-1-5

<400> 101

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ggaatatgca taatttgtt ttctttttg tttaaaagag ttcaacctag ttttatctgc 60
 cagaagagag aaacatcaag atgtgagcat cagacaagct tataatactc tctctatata 120
 gatttctaca aagcttattt ttggtaatg cttgtgtgt gtgtaatact tcaaccccat 180
 gggaaatgcta cgtttattag ctctgtctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
 ttct 244

<210> 102
 <211> 346
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c9-1-4 ; homology with Drosophila heat shock protein 82

<400> 102
 gaagtcgagg accgtgccca acggtcagca attacaagag taaatgcaga tgatgttcgg 60
 gtcactgtat ccgcacctgc agctcggtgaa gaagctaaca atgaacttat ggaattcatg 120
 ggtcgagtac tgggtctgaa actatcttag atgactctcc aaagagggtg gaatagcaaa 180
 tcaaagctc ttgttagtgaa ggatttgaca gctagacaag tatatgagaa actcttgaa 240
 gctgcccac cttgagatgg ctccctgatc ctttcttct ttgtcatttt ttccatgttt 300
 gtaacattgg attttagtt tcataaaaatt gaattcagtt gtcttt 346

<210> 103
 <211> 360
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g10-1-1 ; Arabidopsis genomic homology

<400> 103
 gaacgagaac aaaccatctc aaaagtacat cgagatagtg actgaagata attttgaatt 60
 ttggttcatg ggcttgtac gatatgaaaa agctttcttgc aatttacaaa aggctatttc 120
 catcacgaat tagctagctg ttaggcattt gaatttttag ggttttaaag aggattcata 180
 attctgtat tgttctttt tccttattaa atgttgaact ggttagcatct aatctatgct 240
 tgttcatcat tttctttct ctcaacggaa gaggattga gatttatgag aattgaattt 300
 tgttagattct gaaatttaat gaatttctca acatataat aagatttaga ccaaagttac 360

<210> 104
 <211> 556
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-21 ; Arabidopsis genomic ABA-regulated gene cluster homology

<400> 104
 ggtgggattt gactatgcat atcgaaagc aatgaattcg actatgaaat tcatacacaag 60
 ctcaaagaac aaggcgatac catttttag aacgactacc cccgatcact ttgagaatgg 120
 tgaatggaaat acgggaggtt attgtatag aacagaccc ttcaaacaag atgaggttga 180
 cattggttat gtagatgagg tgatgcgcaa aattgaatta gaagaattcg agagtatatc 240
 gagaacagaa tctgcagaca ggttgacaat gaaattgttc gataccactt tccttcgct 300

gctgagacca gatggcacc ctggagtcta caggcaatat cagccatttgc 360
ctaaagaaaa tatgaacaaa aagattcaga atgattgtct acatgggtgc 420
ttgcccggcc caatagatttgc 480
gtggAACGAT gtaatgtatgg aaatgttggt caccagtta 480
aaatgggtgtg acatttagatttgc 540
ttgattttgc tccccacaatt gtattgttca tctgcaaaag atgggtgcac 540
actatTTTC 556
accattgttt cctctc

<210> 105
<211> 579
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g12-1-5 ; Arabidopsis membrane related
protein CP5 homology

<400> 105
tattattcaa gttggtatat tggagaagtgaatcaagtgaggtaacag ccagccgacg 60
cgatgtgaag tgattctatt ccatcatgaa gatatggca tcccatggaa aattgcaaaa 120
tttgggttaa agcaaggatgtggggagctgtgaggaaga ttgagcgggg attccgtgcc 180
taccagaaag ctaaagcattc tggcttggaaa atatctcatt gtgcattttat ggctagagtt 240
aatacaaaaaa ttgatcgaga atacttgaag tcaatggaaatgatgagga ctcatctgaa 300
actgaatttgc aagcttcacc tgcacaaacct gagggcatga acataccaaa gctgattatc 360
atgggtggag ctgtggcagt tgcttgtaacc cttaatcaag gaatcttacc caaggtgctt 420
ttgttaatgt ctgtgaaaag gtttggaaat ataggaagga gagcatgtcc aaggacatga 480
catttgatttgc atgcgtgcatttgcgcatttgc 540
gctctttata tattttaaac aagcaagtgt tattttgtc 579

<210> 106
<211> 358
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-2-4 ; homology with vetaspiradiene
synthase PVS4 (sesquiterpene cyclase)

<400> 106
gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaaat 60
tctcactcgat attctcaatc tcgctcgat tatagatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tggtggactc 180
cattgaaatc taaaccatttgcgtgctttt tcatttcgtt gatcggttttata 240
taaataaagg atcagaacttgcgtgcttttgcgttata tataagcaag ttgagttcc 300
tacttctgtt caaacccctgt gtttgcgtt ggcgtctgaa taatataatt ttgtttgc 358

<210> 107
<211> 264
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-10

<220>
<221> misc_feature

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<222> (219)..(220)
<223> n can be any nucleotide

<400> 107
caaagataaaa gaaggctgga gttgttaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagatttg atgataggag ttttggaaat cgttgtgtt 120
tgcttttaga ttttggttca ttactggcaa gtcatttggt ttcatctttg gtgtcattga 180
agactcctag aaatcaattt cccaatagtt ttcattgnn ttatgtatgtt gaacattctc 240
ttcgagaca cttcattttg ttgc                                         264

<210> 108
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-22 ; homology with orf 03 A.
thaliana

<400> 108
cttccatcaa gcagggactg gttggggac tttatgggtt ggaaaccagc agttggatg 60
gagaatagcc aatcattctg ggcaatttta acaatatgga tagctttgtt tggagctgca 120
ctcttttgc aaaagtgaat catatacaag taaagctgtt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g                                         211

<210> 109
<211> 262
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-3 ; homology with sequence 161 from
patent EP0953640

<400> 109
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taatttgtga tttatattgg gttgttcatt cagaaagctt tgccaagtaa cttagaatta 120
gtgtttacat ttgtatgtct ttgtttgtat attactaaga agaaaagata ttggggaaaa 180
aagaaagcca gaccactgaa tggcaggctt gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcattttt tg                                         262

<210> 110
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-4

<400> 110
gcttcaagt gatgtatgtt atattaaggc catgattaaa ttgggccgtg gtgatgaaaa 60
tggtggtgtt gtcacctttg aaggtttct ccaaatttttgc tctttgtat ttgttgctt 120
gatgacgatg ataaatgtca gattaggtga acaagttttg gtttactttg tattttcaa 180
tgatttttt tactgtgtt cttcatatgc tattggctat ccggagaatt ctatttgaaa 240

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acaaagaaga aaaagagttg ttccg

265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgatgact acattgagtt tgaggatgaa gacattgaca 60
aatatctaaat ctgaacgcaa agctgctgtt actgagggtcc gttataggcc tttctaattgt 120
ttttgtggag cttttccat aaacatttag agtgtatctt gtgtatcgtt tgaagttatg 180
tatcaaactt tgtcattgtt gagttttgtt ttagatttt gcttccatga aatgaatgca 240
atattcttagc tgggtgtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atattcctgg aaacatctca acttgcataca tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatctta ctcacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaagggga ggaccaaatac 180
tggaaaggta ttaaagctac tctggacgac tatgctgcta aggtacggc aagaggggac 240
aaggaattta gtcctgtcta tcctttgtatg cttagaaatcg gctcttctt atctggaaat 300
cgtagagga gctttgagag aatgcaaagc tcaaatacatc ttctcttggt atatgccctt 360
ccccatattt ttgttcaat aatattgtca cagatgaaca catagcagac cgttatctat 420
gttcgttta gtgtcttact ttctttatat attttacctc aattgattt 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-2-2 ;homology with ubiquitin [I] able
to induce HR-like lesions

<400> 113
gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgttt ctgggtgtgg tcgtgatgtg 60
ctttgtctac tqaggtctca aagatgttct atgctatttc tggttgctgt ttctctttag 120
ttctctgttg tgaataaaaga ttccgaattc tgccctaaaa aaaaaaaaaat gaagtttatg 180
tatattggaa gaagcattgg tgcgtcacc aagtcccatt tgatatatgg ctgtgttttt 240
gcttggctaa ttgtgttta aactttctt ctatctgtc tcaatataact cctgaacaga 300
ctgatgtacg attttaaagc tatgtatgtt taaactcttctt tatctttgc 350

<210> 114

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<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-11 ; homology with sequence 7 form
      patent EP0953640 [I]

<400> 114
gtggatgaag ttaaggtgac ccctgttgc tagaagtaca cagagcttt gtaatggtca 60
atagagttt ttgcaatgct aatttcatac ttattaagct accactgtga ggcaattgct 120
gtattttacc tatgtgattt cttaaaacta tgaatttagat gcctgctgtg agacattgtgt 180
actattgctt ttaaggaagt gtggatctag ttgaacttcc tctccttac tatgtgcact 240
ttgatcttga ttcttagata gtcaagaagt aatatataaa attgtactac tatatttcaa 300
attttcatg tttcttgaag gatgaaaatat aaatgagttt gtaacc 345

<210> 115
<211> 344
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
gatacatgga atgagttgtt gtttgatctc atagggagag acttccagag tagacagagc 60
aatgcttcattt aagaagaagg atccttaatg ctaaaaaaaca ttttttgtc ttctacagca 120
cagctacggg aagattattt atctctctcg aatggagttt agcttttagt ttacttttaga 180
tctcttggtagt tagctgggtgt tgtaatctat gtttagatat ccacggtaag ataattccta 240
agttacacgaa aattttcaca ggtctcaagt atgtgtgcag ggatatttaa ctaaatacaa 300
acgttttctt tgcaataaaaa tatttcatct gattttccc tcgc 344

<210> 116
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-4-1

<400> 116
tgaatgttta atgttagaaa gtgaattact ctctttatgt ggtgtctgaa catatgttca 60
acattactct tcaaattacc aataattaat agtgcgacaa gttataggtt ataggttcat 120
gaaaaattgt ttccatcttg taaatttagat tgctaaattt atcacacatc tgtgtgcacc 180
tatattatag tttctgctt cattgaaaat gagtttcaag ttttctagtg gaatggata 240
tgttagttagt aagttggagg gttgcttttc attctttga aagggtaaag caaacttaag 300
c 301

<210> 117
<211> 525
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid g17-2-13 ; homology with wrky (zinc finger
      DNA binding protein)

<220>
<221> misc_feature
<222> (466)..(521)
<223> n can be any nucleotide

<400> 117
aagtggatat tttggatgat ggttatacat ggaggaaata cggacagaag gctgtcaaga 60
acaacagatt cccaagaagc tactaccat gcacgcata aggtatgtac gtgaagaaac 120
aagtacaag gctgtcaaag gatgaaggag tagtagtac tacttatgaa ggcatgcatt 180
cacatcccat tgagaagtcc acagataact ttgagcacat tttgacttag atgcaaatct 240
atgcttcctt ttgaaacgtc catcacttca atgcctaagg catgacactc aatttagtcac 300
ttgtaaaata gtactacagt atattgtgtt catgcgtttt gaaccttagat gctatatttt 360
gaaataaaaac gcaacttcat taggaaattt aatttgcata ttgtacaact aaaagtaatg 420
ttgctatttt tttgtttta tcactttgtt tttgccggag ccatgnctc attttaactc 480
tttcttttag aattaacaaa taattnccatg ttggagaaga ncgtg                      525

<210> 118
<211> 225
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g17-3-2

<400> 118
gaccaaatttga gcaaatttggaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
ctcaattttt gttacaaaaa gatttcttga tttaactttt gaaagtaaac acgtgtgt 120
agagaagtaa atgcaggcac tgggatttca atatcgttt attgtatgtg gtacagtagg 180
agattgaaac taaacattttt cttgaagttc agtacgtgtt cattt                                225

<210> 119
<211> 412
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-4-7 ; homology with L18 (60S)
      ribosomal protein

<400> 119
attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgtcttagt agccccttc 60
gggcagaaca cggtaactgt taggggtcca aagaactcgc gggaaagctgt taaacacttt 120
ggtagagctc ctgggttccc acacagccac acgaagcctt atgttcgggc aaagggaaagg 180
aagtttgagc gagcaagagg gaaaagaaag agcagaggtt tcaagggtt aggaatttgcg 240
agtgttttag tgcacatgtt gagaattttt ttttagaggt ttcccttacc tactttttac 300
catatttagct tcttttctt gtcgaatttc ttatttcacc cctgtttctg tgacactcca 360
acctatagcc gatttgaat gcttttattt tctatttctac gaaattaagc tg                      412

<210> 120
<211> 373
<212> DNA

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<213> Nicotiana tabacum

<220>

<223> plasmid g18-5-1

<220>

<400> 120

acattatcaa gacgaaggca ataagtgggc ttactcattc ttactgaaaa acggggctgt 60
gaaatttggtaatcttca agaatgtact tggtccatc aatagaaaag caaacaatat 120
tgtgttcagt tacagccttg ttgggtcttg ctgagagttt tttttcttagt tcctgaaaagt 180
tatcttgc当地 gctatcatgt agctgtgtgg taatttcac aggtttgagc tacagttgaa 240
gccagtaaca tgtgttgata ttatagctaa aataactaat gcttacctgc agtttccgtt 300
tgtgtggaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
tctattgcat tac 373

<210> 121

<211> 390

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-5-12 ; homology with
capsanthin/capsorubin synthase, promoter region

<400> 121

gttgcaagg gtgtatccga accctatttg cagaaaaatt atactgtata tacaaggta 60
aaatttatttt ttctgtttat atagtttagt gttaaattgt cttggcttt tcgtgtattt 120
atttctttat atttgaatc ttcttggta aaatccttagc tctgtacaca caaagagccg 180
acatgctgat ctctctctt ctctggacgg agagtcttctt gaagtgattt tgtgttctt 240
cagtgtgttt atagatcaat ttatgttctt tgtcaaattgg atttctaagt gaaaaaagag 300
aaaaagtatt tcaatgcgtg tgacctaccc tgcataaact ctgcatgtg gatataacaat 360
gtttctgtttt gatataatgtat tatgttttgg 390

<210> 122

<211> 381

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-6-12

<400> 122

tcttcacgaa ggctggttat acaaggact catgggtct tctgaatgac ttcatataga 60
tcctggacca ccctggtttgg aagatggagg tagaagtacc aattgacttag ttacacctgc 120
aatttcattt actataattc agatgtatct gtgtacaagg cagccgtgtt attctgtttt 180
gttgaattcg cgacactgca ttctccgtct gttttttgtt aatctctt cttttccctt 240
cttttgcctt cgttttatgt ctgtttgcgc ggcaggagaca gaaacagaga aaccggcg 300
taatataagat aaaagcttcc agcttattca gaagatcttgg aatatgtat aattttaatc 360
tctcacaaac tgtgtatctt t 381

<210> 123

<211> 356

<212> DNA

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<213> Nicotiana tabacum

<220>
<223> plasmid g18-6-5

<400> 123
ttagagaaaa agagagagga aaatcgtaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaaa ttttagttgt catttcttctt ctggctttc cttccagtc gatctttct 120
tcagaaaaaca aaaaaaaaaatg gttcaacttt agtttgagt ccagatttga tctcatttct 180
ttgcttagagt ttcgttgct gttatggct gggttttgc tttaccctgt gctgaacttc 240
tttcatctt atttctgctc tctaccagct atttcgagct ttatggta agtattctag 300
gtacacactt tcaaatactgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356

<210> 124
<211> 293
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124
aagaaaaagt gcaccagggg cttgtccttg ttgtggagga aaagtacaag ctgttagatgt 60
agaaggccgt ttcagattt gctttctccc tatttgctt aggttcaaga ggaagtatct 120
ctgtactctc tgttctaagc gtttgggtt gtattcttga tctccctatt ttcctttgt 180
aatttctact ctcaatttt tgaacagcat cctataagtg taattattta tttgaaatag 240
tgtttgagag ttgttcattt gctcaagaat atatgaaact tttgttagtg tgc 293

<210> 125
<211> 259
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-8-7

<220>
<221> misc_feature
<222> (104)..(104)
<223> n can be any nucleotide

<400> 125
tgaagatgt aataaattgc tggaaagat aggggatgtat gttgggtgtc atgatggta 60
cgatgaaaac tagaatgtatg tttttttctt caagtaaatt tatntcatgt tatttcttgt 120
tagttttctt cttctccact cccctctgtt tttctgtggc gcatagggtt tacattgtaa 180
aaatttccca ataccaacat aatttaagga tgtaaaccat cttcttgctt tgcttgtat 240
ttctctacta ggttgcttt 259

<210> 126
<211> 491
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

ggtttaata agcttattgg tgggggttg ttcgagttt ttggttactt taggagaggc 60
aagtggtagg tggacgagtt ttggggttat attcaaattg gtatggagtt caggattgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtggtg ttgtatatgt attcaaggc 180
atatcgtggg gagctggcgt ttgagatcgc ggaggagtt gcgagtcagt atgtgtgtt 240
gcctttgtat aatgagaagg ttcctcatct tggttgtt gttcaagatt gaatgtgcct 300
aaggtcagtg agattatgtt aggtatgtc agttagtagt ttgaagaagt agtgtttgt 360
tttactcgta gcatgtatat agtttcttgt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttggc aatgtgcattttatgtt aaaaaagctt aatacctgtt atgaaattcc 480
ctccnagtt t 491

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

taggaaatga ccttgcagg agttaaatca tataaatatt ttttggact gcaaataatg 60
ataatttttc ttttctaac caaagcaaaa taatatcatt tgtgaaattc agtcgggtgt 120
cctgaacatt attagattta aatggagaa atgagagaac acgtatggcc actagagata 180
ttaaagctac ctaaatatga caatagatga agcagaggac agtataatatt aattttcttt 240
taactataac atacattgcc ccctttatag atcaaagttt ttctactatt atttaattta 300
ttactataat aatcatctct ctctaggcgg ctagttggga ctatgctcaa cttgcaatatt 360
ttaattttgt tttcatgttg ttccttttc tggatgtatgt tttaactgtc gaaaaaattg 420
agagctaagt tgcatggttc tgagttcgaag ggattaaaag caatgttaat caattggctc 480
tatgc 485

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

ggagggaaaga tcttaggaatt ttccgagtt tgaacaattc ttgggtgatc gtttctaccg 60
tcaatgaagg cagaaacagc ggtttgaat ccacctctca tctcttttga caacaagagg 120
gtatgcttatg gatttgctgt acgacctcag catgtacaaa gataccgtga atatgctaatt 180
atctacaagg aagaagagga agagaggtct gataggtgga acgattttt ggagcgtcaa 240

gcagagtctg ctcagttacc cataaatggg atatctgcag acaaaagttc tactaattcct 300
gtgccaaac cattagtca ggaggtaat tgtatgcac agaacgggaa agaaggtaa 360
cttaaaatg caactgagaa ggtatgcata ctgacctctg tggagaggaa aatttgtcag 420
actcagatgt ggacggaaat tagaccctct ctacaggcag ttgaggatgat gatgaacact 480
cgtg 484

<210> 129
<211> 224
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g19-2-1

<400> 129
ttttttttt ttgggtggcg gaggaaagcg tgtgaaaaaa aagaaagaaa aaagagaacc 60
atagagttaa aggccagatc atgtctgcata tgagtcatca tctgttgttg gaagagaatt 120
cacttgttta atttacttc tcataattta tatcatggaa tttcatgttg gatggatgga 180
ccagtgtgta tgtcaaatta attcttattt cgaaaaaaaaaaaa 224

<210> 130
<211> 198
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g19-2-9

<400> 130
ccagtgtaat tggactttgc gcaattgaga gacaagggt tagaggtata tacgtgattt 60
aagatcgtga tctatcttgc tatctctcat ttttttggaa tttttctttt cttctttttc 120
cccaaatctg taatttgcata gattcttagac agtgttagtg tataatcact agataatcta 180
tgtataatca gtttatcc 198

<210> 131
<211> 204
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g2-1-2 ; homology with 5-epi-aristolochene
synthase (sesquiterpene cyclase) [I]

<400> 131
ggactccatc gaagtttgc ctgccaattt ttgctcatct taaagaaact tcattttct 60
gtgttggaaa agtagttata tatgtttttt taaattgtat aattaagttt ttaggaagct 120
ggttttgcga ttgtgcagtg gacttcctaa ctaggacctc cttgttggaa gtaatctca 180
agtgttatga attcacttgc attt 204

<210> 132
<211> 313
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132
tgcgagaaaat ttgtattaga gcaaaaaatg gtgcttgggt gattcgcgg 60
gtgacacgag ggaaggagct ctatatggta cttgagaaag ccaatgagac ccttccttat 120
gcctctgaag ctgttggaaa gttcagtgtac aggtattgca gtggcgctt ttctttgtaa 180
gagggaaact agatttttgtt attgccgaga cacaggattc atacaaaaga catagctaca 240
tatcttatgt tggtttaat tcaactttgt ttgtactgtt tataaataaa taaaaacttg 300
atcccttcctt ctt 313

<210> 133
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-29

<400> 133
ttgcaatgaa ctgtttaact aaggtggct ataaagaagg tttggaaact tcttatattt 60
agttgtttac gagacaaatt cgtgctttcc tggtttatca agaaaagaat tggtaactt 120
aatgaagcat gtctccacac tgatctatct attctgattt ccagtgtaac agctttttg 180
gccattacag tggtttattt atgatcacta gcattatcat atctagtaaa gtaaacacgt 240
caagtcaatt gatccattca actgttaacta tgctgaattt tacttatgga aaattcggaa 300
aatactattt acttc 315

<210> 134
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-31

<400> 134
agaatatagc tactacaagg tggttctccc agtagatcaa ctcaaagcca ttactccgtc 60
aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgta gctagcgtgt 120
cattttcttg gtcatttcag atgaggtccg tgacactgtt gcttgcttt gtttagata 180
aaattctgtt aagtatgcac atctgggtga ttgatgttg catacatgtt aatttatcag 240
cggttggta tcttggtac atctgtttcc tgaattttt attatctttt agtattactt 300
tggttggttc gattt 315

<210> 135
<211> 483
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-1 ; Arabidopsis genomic homology

<400> 135
attttgagac cagaaggaa gctcattgtc cgtgacaaag tggaaagctgt aaccgaatta 60

gaaagcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
ggatttgtgt gtgtcagaa aacaatgtgg cgaccaacgg aggtttagac actaactaat 180
gcccttgctt agctgcttag cgtgtgtcg gatgctgggtt gtatatcatt cgagaggctt 240
tcatgccacg gtgactagat agttttcga ttaaattctt gttactgtat tcttgcagg 300
ctaccgtgtt ccattccata gaaaattag tgctattatc actatataatt tggaaagt 360
aagtttgcgtt atattatgtc attagttgtg gaggagggtt acattcttgg aattgtaaat 420
gccattgggtt taggacgggtg gaaaaattc aaaaacacca gaatgaaatt cgtttcaga 480
gct 483

<210> 136
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

<400> 136
atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
aggatgagct tcgggatgct gtgctgctt tgtttctaa caaacaagat cttcctaattg 120
caatgaatgc tgctgaaata actgataagc ttggactcca ctctctcagg cagcgtcact 180
ggtacatcca gagcacttgt gcaacttctg gagaggact ttatgagggg cttgattggc 240
tttctaaaca tattgtaaac aaggcctaaa ccaacgtaga gttgttgcgg gttgatcctg 300
gatgcaggcg ggttttatac tagttcttt tcctttttt cccgaacatt cccagaatct 360
gtgtggttat gaatatccc taaaaagtat ttgctctt gtaggaccta ttgaaatgtt 420
ttttaataac agtgggttggaa tatatgtaat tgtttgcgtt gttaaagta taatgtata 480
atttgtaaca gagatagat gtttgcgtt tcattggtaa atggtaatgg tataacttccc 540
tggattttcc ttc 553

<210> 137
<211> 501
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137
gagctctggt aattaacatt ggcgtatgctc ttcaaataat gagcaatgga cgataacaaga 60
gtattgagca tcgaggattatg gctaattggca gtaataatag gatttctgtt ccaatttttg 120
tgaaccctaa gccttagtcat gtaattggtc ctttggcaga agtgcttagag aatggagagg 180
aaccatattt caaacaagtt cttaactca gttatgtcaa gcatttcttt agggaaagctc 240
atgatggaa agacactgtt gattttgcgtt aaatcaagta gaaatttagt gatctgctcg 300
aagaataaga agtgcqctta tattaagctt atgtatcccc ctttcatgtt ttttagtta 360
cgactactca gcaattttaaa aaaaaagaag agatagtctc atactgcata gtataggaga 420
atattttgg gattaattag gtgttgcgtt ttgttaccgg ataaattata attgagctgc 480
tgatattatg gcaatttttag c 501

<210> 138
<211> 373
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138
aatatgtaga gatcggttac ctgaatggtc tgtttgtctt ggcacgttctt attgggtctta 60
tcgggcacac atttgatcag aagagattga agcagcctctt ataccgtcac ccatggaaag 120
atgttctcta caccaagtga agacgctccc aatagcagca cgccagaaagt cgccgtcttc 180
ctatccagca ttttatcgaa aagtgtttgt tttagtcattt gttgtgatca ttcttcttg 240
tttctgttag tattttgtac tcctaagaac ttgctaagca tttctgttaag ttgttataag 300
agacaactct ttttagttca caccaagagt ttcccttcaat tcctatatata caaagaaata 360
acacattcat tgt 373

<210> 139
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-4

<400> 139
gttggggaaa aaggcaaaaa gatgaagaaa aaggcaatgg aatggaaggg attgactgaa 60
gcatctgcta aagaacattc agggtcatct tatgtgaaca ttgagaaggt ggtcaatgat 120
attcttcttt cgtccaaaca ttaagttaaa taagttacta catcatttaa tcttccttaa 180
atttcattct ttgttcttg taagtcttt tcatacttat ttcccttctt actttcggtt 240
tgcattgtca cagtgttaagg ttggaagcaa ataatatatc ctgcttaatg tcgttggc 300
g 301

<210> 140
<211> 299
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-5

<400> 140
aggttataga tgaaagacca atggcttag taactgatgc tggtgcgaat gaagccaaag 60
ataaaaggctc aagctagaaa ttgcgttaat actgattttt ttgctgtctt cttaacatt 120
accatcacta actagttctc cattttctt actgggtgtat ttactttcaa gtattttatt 180
tgcattgtca cagtgttaagg ttggaagcaa ataatatatc ctgcttaatg tcgttggc 300
gctggaaagga tttgaggat tagatagaaa gcatcttctg atttaacttc aattatgtg 299

<210> 141
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141
cagtggagga ctcgaaatgg aacctgatga tcaaaataat ttgcttaatg gtattgcaaa 60

cttaagcatg tcttatagtt atccaaatgg tgctgcaact gttgtcgggg aacacccata 120
tggagagcat ccgtcaagga cattattcg tgcggaaatatt aacagcaacg tagaggactc 180
agagttgaaa tcgcctttg aagttagtgc taacttacca gtttcttaa atttgctct 240
gttaatttagc tatcctttt cgtacttcct ttattgcgt tgaaatgctt gtttctcatt 300
ttgttgtgc aagagatatt ttctttgga cgacttcata tgctgaaca ttgttc 356

<210> 142
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-4

<400> 142
gctgggtgatc aaggcttgg agatatcaaata gataaaatta tgataatgaa tttcaagaat 60
tccaatggcc agaatttgc aaagaattca gatttatgga atttggaga gtgaagaaga 120
ggaaaagatt ggaaaacatc tttattgatc acttctgcaa acaacaacga gtagaggctg 180
atttagaatt taaagttaa gagttttat aaatttagag ttaaatattt gtatataattt 240
aatgaattgt ttaatatata tacaatatcg tcaataggtt attataaaaa tgataagttt 300
ttgttagggag tgtaaaggaa aaagtttga aaaagaggag gatttggc 350

<210> 143
<211> 481
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
(ATP binding cassette protein)

<400> 143
gcgaggggcca tagtggaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
gatgcagaat cagagagatt agttcaagat gcacttgacc gggtgatggt aaatcgatc 120
accgtggtgg tagcacatag attatcaacc attaaaggag cagatgtat tgctgtatgc 180
aaaaatggag tgatcgatggaa gaaaggaaat catgagactc ttatcaacat caaagatggt 240
ttttaggcct ctttggtggc cctccacacg cgtgcttctt agttctactt tttttcatt 300
aagtaaattt tattcatttt aatttcgtta tcttttgac ttttgctgaa gaagagttt 360
tttaatagtg tactgcaact catataaagc atagtagatg agcattctc aattacccaa 420
tgagagaagc aagtaaactt gcctccccga ctgacttga tgtgttctgg ttatataagtt 480
C 481

<210> 144
<211> 480
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-6

<400> 144
agcaggacta gtcaagggtgc atcttcacat tagaaatgct tggatataatg tggatcagcc 60
tatcaggtag atgtgcata aagtttttag gagcagatac aaccctggaa acctgtacag 120
cttcttacgt ccctttata cctgtactat aagtaggtag gtggcgttgc 180

aagccaaaaaa aaatatacaa gtaagcttca ccatgctcca ttacttagaa actgtacagc 240
ttgtgattta ccaaatatgt ctacattagt cctaataattt ccttagatat acgtgccta 300
agtattaagt caaacctgag ttttcgaag ggaaactttt tgttagcaatt cccttgatgt 360
tgttgactaa cttctcagca gttgcaagtg aatttcattt attgtttgct atttcctgc 420
tgcgtatgtt ctctttaaa attgtaaaat gtttctgtt gttcacacc agcttcatcc 480

<210> 145
<211> 447
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-3-17

<400> 145
tggggacagc aaaacctcct tggttgtgcc agtgc当地 aactaaaca 60
ggaaacatgc tcaggaaag ctgaagatcg tagatgtctg aagtttagtt tcccacgttt 120
tcactattt agcagagatc cagaaggaag aggaggaaaa gcgttctacc ttaagcagct 180
agtcgtgtt gatcgatcat atttcatttc tggtttggtt tttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata ttttgctt agctttcatt tcataatgcac 300
attcggctgtt gggctcctc tgtaaaataa tgaggctat atcattataa gcattaagct 360
tctcttgtaa ttgtatcagt aatattaatc tcttcatttc attagttcca tgactcaacc 420
atcagcaggtaataaagagt ttgtttc 447

<210> 146
<211> 450
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-3-4

<400> 146
cagtatagc aaatcaagta attttgaagg ggcagctgat gtttctcaca atgttgtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgttga ggtggaaatt tccatggtag 120
gcaagggtggc tctggccaa taaatgcca ttatgattga ttgtatgagga ggctaaaatg 180
tggatatttttgc tcttttagt ttgtatgga tagcaaactt accggataat ctttgcttag 240
tctgcatgtc tgggtgtgca gtcttaggtg gtatgtttt acgtggtaaa agagaattt 300
ttggccaatg tcacacgggt gagctggact acagccgggt tttgcccacat ggtttggga 360
aaaattattt tgtttgtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
agaacattaa aatagggcc cattttctcc 450

<210> 147
<211> 335
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-5-5

<400> 147
gaaaacacag aggcaagat gatggtgacg aggagattga cagatactt ggagttaaa 60
acgggaaact atcaggaaag ctatcaaaga agccaaagag aaaatgagga atatataatt 120
aagctattttt agtccaattt tgacttaattt gaggaatattt ataattaagc tatgttagtt 180

caatttgaa cttaattagt tctttcatta ttcccttgggt ggctgttaatt tgacatttct 240
gcaattctgc tggatggtt ttgatcttag ggactctatt attttcattt tcttggtaag 300
atccttgccc cctaatacgt gcacc 335

<210> 148
<211> 245
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-6-1 ; homology with LOX lipoxygenase

<400> 148
gtgaaaatgg acttactgga aaaggaattc ccaatagtgt ctcaatttga ggttctacag 60
cacgaatagc tgatatatacg ctttgcagt cctcgtaac ctgcagaaat catccgcaac 120
ttaaggcaga gtggcaacag atgtgtgtat atctattttt atgtcaatat ttgttagcc 180
aaatccatt attgttagtg tgtgtttta caataaaatc aatgagcaa tcccccttattt 240
ttcccc 245

<210> 149
<211> 353
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-1-7

<220>
<221> misc_feature
<222> (141)..(141)
<223> n can be any nucleotide

<400> 149
gcattgcgggt gccttatccaa agatcctcggttttagatcaa gcatgagtgatgtt 60
gaactagagc aactttatca acaatctaaa gatgcaggta atactcgcaac ccacggtaac 120
aaccggcccta gaccacgttag ncgaagtgtt ggtgatgtt gtaataaaca tacttcagtt 180
gcttatccaa gaccgtctgc ttctccctt tatgtctaaat aattcaataaa atgatatgtat 240
gccttttcat gttttgcctt tatgttttc aagctgaaga acctgcacat ttgcagaatc 300
agctgattgtt acagttgttt tggtaatgtt attggatgtt tttgttaacct tga 353

<210> 150
<211> 351
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-2-1 ; homology with chitinase class 4

<220>
<221> misc_feature
<222> (31)..(349)
<223> n can be any nucleotide

<400> 150

gtaatataat cgtatattct tttaaaata naatcatgt a tagtgaggc tnatgcaatt 60
ctcanaacat atatatgtcg ncctcaactac cgggggagca actaatantg aatatctnng 120
gttatnctt gattcaactn ctggnnatna cttacgtcct aacatgttag attatcccc 180
gtctccagac ccagtngtt acganactca gtataatact cagccctcn ggcaacagtc 240
tgaaggtgga nctccgnac atncnatctg gccattaatg gctcaaatgg ttgggccaag 300
accttgggna naagntgatg aaagaatggg ngnttggtna gnncgatanc a 351

<210> 151
<211> 352
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-2-18

<220>
<221> misc_feature
<222> (30)..(347)
<223> n can be any nucleotide

<400> 151
gaatagtta acttattttt caaatggcan aaatggactg acttaacttc tgtacatnag 60
ctataaaagat gataatcaga gtgcctnctg catntcatcc tcttcttggaa antgcaagaa 120
ctggaaagccc ttcattgtat tggagtgtaa acgtgtntc ataagttant tctttcgtgt 180
cgtctgatag tttgaacctg ananatgaa gaagagctan tggnnnaagat ctncatngt 240
caataaanga gatctngcc taaaacanatt cgngacnag cgtaaatgn taggaaatgt 300
gaatggtaac gctggnctgg aagaagancc nntccngnca agncaanctt tc 352

<210> 152
<211> 424
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-2-5 ; homology with basic PRB-1b [I]

<400> 152
gttcgatgca acaatgggtg gtatTTATA acatgcaatt atgatccacc tggtaattgg 60
agaggacaac gtcctacggt gatcttgaag agcaacatcc ctttattcc aagtggAAC 120
ttccaactga tgtcttagtaa taacggttta cgtgatcaaa taatgaataa aagcttgc 180
atgtgttaag gaaaattaaa taaaataccag tactatgcta tgtgatgtta tcttttacc 240
cagtggataa taatccaatg gtgttagcaag ggggtggattt actgttatct acttggTTTA 300
catttggTTT tgggtgtt atggaggtgt gtataatgtat gtgtttgtat gaataaacaa 360
agtgaacaag gtgatgagtc aacagcgtatg taaattgtt ctttgattaa tataattact 420
tact 424

<210> 153
<211> 277
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-2

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<220>
<221> misc_feature
<222> (40)..(265)
<223> n can be any nucleotide

<400> 153
ttcaaagttt tcgttgccct accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
aacctgatat cttnntgaaa tcctnttagta ctagaaaaat ataangtagt attagtttn 120
cattcttca atgtgtgcag ttacatccct atctttggg aggatacatc atcctcgnc 180
tcattggact tgaagtacca ccttaatcng taaccacaat ttttnaactt taaataat 240
caaattttata atgacaaata tgtncttct ccacttc 277

<210> 154
<211> 366
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-6 ; homology with chloroplast RNA
      binding protein

<220>
<221> misc_feature
<222> (43)..(43)
<223> n can be any nucleotide

<400> 154
gtactatatg atggtagagac tgggagatct cgtggctatg gtntttgtga gctatgagaa 60
tagagaacaa ttggagaatg cccttcaaaa tcttaatgga gtggaactgg atggaaggc 120
aatgcgcatt agcttagcac aaggaaagaa acaataagat ggacaagatt ctgttatatt 180
agttgtaaaaa gtgaaaatt taccatcaat agaagaacaa tgtttattc atggattaag 240
atggctaaag gctttaact aggacaaagg gagatgtacc atttgaatta catcttccat 300
aggttgagct ttctatctt gtttcttac tgccttcat aatttagaga tatcattgtt 360
ccttcc 366

<210> 155
<211> 282
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
      pyrophosphorylase, small sub.)

<220>
<221> misc_feature
<222> (47)..(265)
<223> n can be any nucleotide

<400> 155
gtaatcaccc gtttttattt taaacgaata atttttacag tacctantct nctctttag 60
gggttaatgag aantatctag ctacataaaa gtnggatgtn cgctanattt ctacaggnaa 120
agcaaaatna aagttagaana tttctaccgc atggctgtt acccaagatt tgggaggaca 180
accaagtncc aangcctncc ttcnatgat aatgccactg ggaatcaatg ngtccttgat 240
nacnqgtqana atcccncctct agannaagta tccatctgtt tc 282

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<210> 156
<211> 376
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-1-1 ; homology with ubiquitin
conjugating enzyme

<400> 156
accagaaaatt gctcacatgt acaagaccga caggtccaaa tacgagacca ctgctcgtag 60
ctggacttag aaatatgcta tggataatg gcaaaggcgt caccaggcat gtctgagact 120
ttgttaacagc aatgtcttat tgtgctgggt gtgaatgaat aaattcggcg aaagaactta 180
gtttacttct taatctccct taaagtgggt tgtcaagaga catgtcttt caatttgta 240
atatctattt gatgactatt agtaagggag aaacctcatg taatttact ttgtttgcca 300
gtttacctga gcctttctct agtttttcca atttgccctgg cttgtttgggt tctgcgttca 360
aagttggat tgattc 376

<210> 157
<211> 364
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>
<221> misc_feature
<222> (3)..(257)
<223> n can be any nucleotide

<400> 157
ggnnnncaat ngnnatcgna cnagnnnncn gnannannan tccaaagctn tcnaatntc 60
tccattactt gtgtggataa gcccnatatn atagagtata taacttcgtat catagggatc 120
aatttctagt cgcatagctt cataataatt ctgcaaagct tccgcgctaa ttcccttcgg 180
atctgagccg acatcccattc tctgtatag gtaaatgcct cttttctcc tgaagttgtc 240
gaaattactc gtaatangat attggctaca attgaaaagg tcttatcaat aaaatttcca 300
tttatccgtg atctaggcat aggttagcaat ccattctaga attcttctca ttacctctca 360
tggg 364

<210> 158
<211> 184
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-6-3

<400> 158
gagatcgtatc tacatgaaat ggtatatacg aggacatagt ttccctttagg gaaatgtcaa 60
taggttagag aagaatggtt aaaccgcgg cccgacgggtt taatttaggtt attatataat 120
taggtttatc ttgtacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
gcc 184

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<210> 159
<211> 534
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-12 ; homology with SNF-1like kinase,
      calcineurin B-like calcium sensors interacting
      protein in Arabidopsis

<400> 159
ccagattaag cttcaggggg agaagaccgg gcgc当地 catttatccg ttgcaaccga 60
gatttacgag gtggcacctt cactatacat ggttgcttcg caaggctgga ggagataacct 120
tgaatttca caagtttac aagaacctgt ctaccggatt gaaagacatt gtttggcaac 180
tgggggaagg aggagaggaa gtaaaagatg gtcttgtcgc agcttgattt tgtagtgtga 240
agtca gtttgcgtt ttgccaatgt gaataactct gcaa acagtg tgcttagat tagataatgc 300
tgc当地 gctgtaa aaagaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
cgagtttata atacattgtt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
ctggtttac attgccattt tggtcttatt tggtgacaag atattacgga tcaatacccc 480
ccccaaaata tgtgcttttta ttgaactgga agtggtaaca aagtgtgttata 534

<210> 160
<211> 398
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-2-4 ; homology with a multi-functional
      protein -beta oxidation

<220>
<221> misc_feature
<222> (36)..(354)
<223> n can be any nucleotide

<400> 160
cctcagaaac gcaatggagg tgc当地 catgttt tggggntgat acaattggat ctgaatacat 60
atactcaaag ctaaaaactt ggc当地 gagggc ctatggat ttttataagc catcaacatt 120
tttggagcag agagctgcaa aaggattgcc cttgggagga tcgtgatggat ctgc当地 atatca 180
tatgatcata tccttgccaga agaaggcata attcaagcat gctgaacttg tgntcggaaa 240
taaggcgggn aagtttgcattt attacaattt gttagnagtt cc当地 attaatttca 300
ctat ttttcc cccctcaagtt atttgc当地 ggtt agttgtact ttggctctac aaantagtgt 360
aatcgtccga gaaagagaat gaaatgtcca aacgc当地 ttc 398

<210> 161
<211> 398
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-4-7 ; homology with GST (bronze-2
      protein homologue)

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<400> 161
atggggttgc tagatatcat gtcatttactt acactagggg catacaaagc acaagagcta 60
gtgtttggtg taaaaatatt ggatgcagag aagacacccc tcttatactc atggttgact 120
agttaattt agctgcctat agttaaggaa atcactcccc ctatgacaa ggtgccttca 180
tttcttcattt ttctcaaaga catgtcttc aaagctccgg ccaattgacc tttttgtgt 240
ttatgtccat ctctgtctct tttgtctact ccactcatta attgtactca atgtcttctc 300
ctctgtattt tataatataa taaggcttat ggccatttgg attccaaagg ctacttatat 360
tttgagtgtg tgtttatac aacagaaaat tatcatcc 398

<210> 162
<211> 397
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-4-8

<220>
<221> misc_feature
<222> (207)..(351)
<223> n can be any nucleotide

<400> 162
ccatgagaat gacgaaaagca aggcagaaaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggtt gctggggaaaaaa tagggaaaaaa attattgtat agtcatccta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagaa agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaag aagcggnaga aggtgggtttt gaatttgaac tcnacttga 240
tttttggatta agctttatgtt atcaactccag ctgtgtacgt tggattttct ctttatttgg 300
ttaaaaanac ataagtatgtt ttcgaggata tctctgaata ggtggcttgg natttgaac 360
ctgtggtacc atatatatga gcgtcttcta gttttt 397

<210> 163
<211> 304
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-4

<400> 163
acgaatgtgt ttagtactcg gggcaactcc aagtctttagt atccaagttgt tgcaagctct 60
ttagccttta aaagggtggat gctgccattt taacctgggtt ttagtttga tggaaatttga 120
attcaaaagct tttgtttgtt gcttaggttc ctgtttagt tttcagttga aatagttgtg 180
tactcttca tctttgagca atgaaataaaa agtcctcaaa tctgcttctt tttagaactaa 240
aaaagatctc ttatatttcc ccctgtaaaaa tcttgcaatt gattatcaac cgtcctctct 300
tatt 304

<210> 164
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-5 ; Arabidopsis genomic homology

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<400> 164
 gagctgataa atggaaaagc agcagtaatt ggttcctat tgctgttga ttttgaactc 60
 ttgaccggt aaggcttct caaaggaaca gggttcttgg atttcattta ctcagttca 120
 gatgcttca aataaaacca ttccgctata tacttactcc ccctccctt ttttcccctt 180
 ttccatattt tctgacaaat ttgcatttg ttaaataaac aaaaacaaag aatgttgatc 240
 ttttatatg ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
 agaatgt 307

<210> 165
 <211> 192
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t7-6-4

<400> 165
 aacaataatt ggctataaca ttcaaaaata tttgaaacaa gcgatgccgt tacgttaggg 60
 ttttacggta aaagtagaag ctggtataag ccatcaatgg aaaaactggta taattcgatc 120
 ttatataaaat ttccataatgt attgagacta atatatacag tcggattttt aggtttggc 180
 cgaccggatt ac 192

<210> 166
 <211> 232
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a1-1-17

<220>
 <221> misc_feature
 <222> (71)..(176)
 <223> n can be any nucleotide

<400> 166
 agagaaaagat ctgtacgtaa ttgccaaaaa cgatgagtgt ttggatgtca tgctttat 60
 tgggtttat nggtgtctcc cttttgtatt tgaagtttc ccagaaaatt agcaaagaat 120
 aagcttcaaa ctggttttac atttnggtt caaaatgtca natcaaanaa tctgtnatgc 180
 tattgggtttt gtatgtataa attagatccc atttttttcc tctttccctt at 232

<210> 167
 <211> 489
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t7-1-14

<400> 167
 ccctcagaac gcaagtagca acagttctt caattgctat tgcctatctc tgaactcgaa 60
 ttcatattttt gtaagatctg ctaataatca ctatgtttt ctgcagtggaa ggtgtcatgt 120
 tttgggctga tacaattggaa tctgaataaca tatactcaaa gctaaaaact tggcatgagg 180

cctatggta tttctataag ccatcaacat ttttgagca gagagctgca aaaggattgc 240
 ccttggagg atcgtgtga gctgcatatc atatgatcat atccttcag aagaagcgt 300
 aattcaagca tgctgaactt gtgctcgaa ataaggcggg aaagtttgg aattacaatt 360
 agttagaagt tccattaatt ataataattt cctatttttt cccctcaagt tatttgatgg 420
 tagtgtaactt ttggctcta caaactatgt taatcgtccg agaaagagaa tgaaatgtcc 480
 aaacgcttc 489

<210> 168
 <211> 877
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <221> CDS
 <222> (31)..(588)

<400> 168
 aacttcctct cttaaagttc atttactttg atg gag aat tat caa cat att ctt 54
 Met Glu Asn Tyr Gln His Ile Leu
 1 5

cca aat tac tct tca tcg tct gat cag ttg tca gta atg aat atg 102
 Pro Asn Tyr Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
 10 15 20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
 Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
 25 30 35 40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
 Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
 45 50 55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
 Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
 60 65 70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
 Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
 75 80 85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
 Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
 90 95 100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
 Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
 105 110 115 120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
 Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
 125 130 135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
 Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
 140 145 150

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gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
Val Val Thr Thr Tyr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
155 160 165

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aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
    170          175          180

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ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
Phe
185

aaaatagtagtac tacagtatat tgtgtacatg cgtttgaac ctagatgcta tatttgaaa 698
taaaacgcaa cttcatttagg gaatttaatt tgatcattgt acaactaaaa gtaatgttgc 758
tattnnnnnn ttttatcac ttgttttg ccggagccat gctttcatt ttaactcttt 818
tcttttagaa ttaacaata atttcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169
<211> 185
<212> PRT
<213> Nicotiana tabacum

<400> 169
 Met Glu Asn Tyr Gln His Ile Leu Pro Asn Tyr Ser Ser Ser Ser Ser
 1 5 10 15
 Asp Gln Leu Ser Val Met Asn Met Met Asn Asn Asn Ser Gln Ala Lys
 20 25 30
 Thr Thr Glu Leu Thr Gln Asp Asn Lys Lys Ser Ser Gly Phe Leu Gly
 35 40 45
 Leu Met Ala Ser Met Glu Ala Pro Ser Ser Ser Val Val Thr Asp His
 50 55 60
 Pro Asn Ser Ile Pro Tyr Asn Pro Asn Asp Gln Asn Glu Val Arg Ser
 65 70 75 80
 Gly Lys Lys Asn Lys Val Glu Lys Lys Ile Lys Lys Pro Arg Tyr Ala
 85 90 95
 Phe Gln Thr Arg Ser Gln Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp
 100 105 110
 Arg Lys Tyr Gly Gln Lys Ala Val Lys Asn Asn Arg Phe Pro Arg Ser
 115 120 125
 Tyr Tyr Arg Cys Thr His Gln Gly Cys Asn Val Lys Lys Gln Val Gln
 130 135 140
 Arg Leu Ser Lys Asp Glu Gly Val Val Val Thr Thr Tyr Glu Gly Met
 145 150 155 160
 His Ser His Pro Ile Glu Lys Ser Thr Asp Asn Phe Glu His Ile Leu
 165 170 175
 Thr Gln Met Gln Ile Tyr Ala Ser Phe
 180 185

<210> 170
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
26

<400> 170
cgcgagact ctcgagggcc c 21

<210> 171
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
28

<400> 171
ctcagatcta gaagttcatt tactttgatg 30

<210> 172
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
29

<400> 172
attgaagatc tagacgttcc aactcgaggc 30

<210> 173
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
30

<400> 173
ccctcgagcc accgtactcg tcaat 25